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Is teaching skills for independent living to disabled adults associated with change in self-determination?

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IS TEACHING SKILLS FOR INDEPENDENT LIVING TO DISABLED ADULTS ASSOCIATED WITH CHANGE IN SELF-DETERMINATION?



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ABSTRACT

The purpose of this study was to examine the effect of teaching people with disabilities independent living skills on the basic human needs specified in Self-Determination Theory (Ryan & Deci, 2000). Nine Centers for Independent Living (CILs) recruited 160 disabled adults with disabilities to participate in weekly group sessions to go through the Community Living Skills curriculum (CLS). The CLS curriculum includes 10 sessions that cover basic independent living skills. Groups of participants met weekly to go through the curriculum with a CIL staff member trained in workshop facilitation. We used the Basic Needs Satisfaction General Scale (Gagne, 2003) to assess within subject change pre- and post-intervention. Results indicated participants' overall needs satisfaction increased after the intervention. This result was driven by a statistically significant change in needs for autonomy and non-significant changes in the positive direction for competence and relatedness needs. Results are discussed in terms of recent literature that highlight intervention characteristics associated with change in satisfaction for each of these basic needs.

INTRODUCTION

Disabled people want equal opportunities for employment, health, and quality of life. Sadly, decades after the civil rights movement and a string of federal and state legislation intended to level the playing field, they are often disadvantaged and left behind relative to their nondisabled counterparts. Centers for Independent Living empower people with disabilities to make their own choices across a variety of domains (e.g., healthcare, personal assistance services). Independent Living (IL) skills training is a CIL core service used to empower people. This involves helping people learn the skills they need to live independently in the community (e.g., using transportation, self-care). While IL skills training has been a core service since the inception of CILs, there remains a gap in training curricula.



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CILs are operated by people with disabilities and provide services in accordance with the tenets of Independent Living philosophy that emphasize consumer choice and control (About Independent Living, 2020). With a network of over 464 federally-funded service locations that cover 60.8% of U.S. counties (Education & Services, 2014), they are well positioned to serve a significant proportion of the disabled population. CILs share: 1) a common philosophy about the nature of disability consistent with the social model of disability, 2) a consistent approach to helping people live independently that focuses on personal responsibility, choice, and control, and 3) a core set of services including information and referral, peer support, independent living skill development, transition services, and personal and systems advocacy to increase the accessibility of community environments (DeJong, 1979).

Independent Living Philosophy is based upon the values of consumer sovereignty, self-reliance, and civil rights (DeJong, 1983). The five core services are consistently delivered with respect to the individual's choice and in a manner that keeps the individual in control of the process and outcome (Ravesloot et al., 2017; White et al., 2010). While anecdotal evidence for the effectiveness of this approach is common and well respected in the field, (O'Day, 2005; O'Day et al., 2004) empirical evidence is lacking. In contrast, the effectiveness of Self-Determination Theory-based (SDT-based) interventions lends support to the service delivery approach adopted by the independent living movement (Ryan & Deci, 2000).

Self-Determination Theory was developed

from social psychological research dating back to the 1970s (Deci & Ryan, 2008), but most of the research using SDT appeared in the last two decades. A general theory of human motivation, SDT posits that basic human needs for perceived autonomy, competence, and relatedness determine the degree to which motivation is internalized and behavior is self-determined. Meta-analyses of 73 studies found small to medium effects sizes on health outcomes for interventions informed by SDT (Ntoumanis et al., 2021). Further, SDT has been used in a variety of rehabilitation studies including engagement in home-based cardiac rehabilitation (Russell & Bray, 2009, 2010), fatigue and pain in long term disability (Teshale et al., 2019), and health promotion for people with disabilities (Eagle et al., 2017).

Conceptual linkages between CIL services and SDT make it plausible that conducting IL skills training based on IL philosophy with consumers in groups will improve the three basic needs and, thereby, self-determination. For example, IL philosophy emphasizes the critical importance of consumer choice and control. By encouraging consumers to make their own decisions, we anticipate that their need for autonomy will be better met. Likewise, learning skills that facilitate IL may help meet needs for competence. Finally, the peer support that can be established through group-based learning may help meet relatedness needs. The purpose of this study was to evaluate the effectiveness of an IL skills training curriculum for meeting these basic needs and increasing self-determination. We hypothesized that better meeting needs for autonomy, competence, and relatedness would lead to increases in self-determination.

METHODS

Sample

We contracted with nine CILs to implement our Community Living Skills curriculum with groups of participants recruited in 2019 and 2020. These CILs were geographically distributed across the US and were selected based on a competitive application process. Their consumers self-identified as having a disability to be eligible for services. These CILs recruited 187 participants who were 18 years or older and were legally able to sign their own informed consent. Participants were recruited from existing CIL consumers as well as from social media, email lists, newsletters, and CIL websites.

Measures

In addition to basic demographics (e.g., age, gender, race) we collected the Basic Needs Satisfaction in General Scale (BNSG-S; Gagne, 2003; Ryan & Deci, 2000). It uses 21 items to measure the three basic needs of self-determination. Gagne (2003) reported coefficient alpha for the total score was .89 and the subscales were .69 for autonomy, .71 for competence, and .86 for relatedness. The subscales correlated .61 to .66 supporting their summation into an index of basic needs met that increase self-determination. The subscales correlated with measures of autonomy support and need satisfaction moderately supporting the total scale construct validity.

Design and Procedures

We employed a pretest-posttest design to evaluate within participant change over time.

Participants were recruited by CIL staff to participate in the study. Two cohorts were recruited, one year apart from each other. Both cohorts met in-person. However, the second cohort transitioned to online Zoom meetings between their sixth and ninth session to finish the CLS curriculum due to the COVID-19 pandemic. The participants met in groups that included between six and twenty participants. Facilitators shared the online CLS curriculum either projected on a screen or on a large screen TV to introduce content and to facilitate discussion.

Intervention development

We developed the CLS intervention in partnership with four CILs using participatory curriculum development procedures (Skillbeck, 1984; Taylor, 2003). This participatory process engages end users to select topics, develop outlines, and evaluate the curriculum for practicality, attractiveness to consumers, and ease of use. A more detailed description of this process is available elsewhere (Standley et al., 2021). The curriculum developed includes 10 chapters programmed onto a website using the Drupal web design platform. Each of the session titles and a brief description of the content is listed in Table 1.

Analysis

All data were entered in Excel with parameters set to flag out-of-range values; accuracy of data entry was checked manually. These files were read into SPSS version 25.0 for analysis. Descriptive statistics were computed for all variables and outcome variables were checked

for normality. To test the main hypothesis, we computed repeated measures ANOVA with subjects nested in groups that indicated which CIL had facilitated the program to check for heterogeneity of treatment effects across groups.

RESULTS

We collected pre- and post-test data from 160 CLS participants and analyzed this data for results on basic needs for self-determination. Participants were on average 39.06 years old (SD=18.0), predominantly female (55.1%) with a small minority indicating non-binary identification (1.3%). They were predominantly white (59.5%) and black (29.9%) with 19.9% indicating Hispanic ethnicity. A sizeable minority indicated having less than a high school education (10.3%) with high school graduation (and GED) being the most common educational attainment (45.2%) and 44.5% having more than a high school education. The median household income for this sample was less than \$10,000 per year with 84.1% indicating less than \$20,000 in household income.

The repeated measures ANOVA for total needs score found that needs were met better following the intervention relative to baseline scores ($F=4.452, p < .05$). The coefficient for CIL was not statistically significant, indicating homogeneity of treatment effect across the CILs that facilitated the workshop. Next, we examined whether or not participant age, gender, race, or education were associated with treatment outcomes. None of the coefficients associated with these demographic variables were statistically significant.

We examined the effects on the Need Satisfaction subscales to determine the extent to which total scores were the result of changes in the subscales. These analyses indicated that total scores changes were being driven by changes in autonomy ($F=4.561, p < .05$) with changes in both competence and relatedness being in the hypothesized direction, but not achieving statistical significance at the .05 level. Again, coefficients for CIL were not significant in any of these analyses indicating homogeneity of treatment effects across groups.

DISCUSSION

Overall, this study found mixed results for the effect of teaching independent living skills to participants in groups on basic needs of self-determination. It is encouraging that the results were strongest for autonomy needs as empowerment of people with disabilities is a central tenet of IL philosophy. It suggests that the CLS curriculum is consistent with IL philosophy and encourages participants to make choices about the IL skills they learn rather than paternalistically prescribing them. The IL facilitators themselves are likely important for this outcome as IL philosophy embraces empowering individuals to make their own choices, which is autonomy supportive (Bekemeier, 2009). Importantly, autonomy need satisfaction has been found to predict long term health behavior change (Ng et al., 2012).

Needs for competence were not affected by the intervention. The curriculum was instructional across a range of independent living skill areas (e.g., time management) however, it focused

on instruction more than practice. For example, the time management session included tips and tricks for organizing and using time, but did not include any specific activities or opportunities for practice. Adding more hands-on training to the CLS curriculum may have a great impact on needs for competence because participants would have more experience using the ideas presented in the curriculum. Also, there is evidence that interventions provided one-on-one have larger effects on competence needs than those delivered to groups (Gillison et al., 2019).

Needs for relatedness also did not change following the intervention. The CLS curriculum includes a session on peer support and encourages participants to provide support to each other as they learn IL skills. Anecdotal reports from workshop facilitators indicated that participants formed strong and lasting bonds during the workshop. It may be that while these relationships developed and were meaningful, they were not sufficient to change need for relatedness due to isolation and regular discrimination against people with disabilities. It is also possible that not enough time passed for participants to form new social networks prior to the post-test of the study. Changes in relatedness satisfaction have been found to be related to facilitating group co-operative tasks (Gillison et al., 2019).

Limitations that should be noted for interpreting these findings include those associated with self-report methodology. Additionally, there has been some evidence that the reliability and construct validity of the BNSG-S may be questionable (Johnston & Finney, 2010).

Hence, the lack of findings for competence and relatedness in this study could stem from challenges in measuring the basic psychological needs of SDT. Finally, participants were recruited through convenience sampling by the CIL facilitators and may not generalize to the total population of disabled people.

CONCLUSION



When people with disabilities learn IL skills from trained CIL staff in group settings, there is a positive impact on their level of self-determination as indicated by their basic needs being better met. In this study, needs for autonomy were clearly the most impacted by the intervention. Ideas for improving outcomes for competence and relatedness needs include adding more specific tasks that the groups can engage in to gain more confidence from learning IL skills.

Table 1: Community Living Skills Curriculum Content

Orientation: The Orientation session introduces Community Living Skills' philosophy and components and explains how identifying skills someone currently has and others they want to build on can help them live a more independent life. The orientation session may be used as a recruitment tool and can help potential participants determine if there are topics they would like to learn more about to build confidence in managing their own lives and making decisions.

Disability Identity: This session can help participants understand disability and some of the shared experiences they may have. It supports participants to reflect on their unique and personal identity story. Identifying as a person with a disability doesn't have to be negative; it can be a step towards taking back power to make choices and lead the life participants want to lead.

Peer Support: This session explores who peers are, where they can be found, and in what ways they can support someone. The session explains how peers can help someone feel heard and accepted, help solve problems, and help someone explore new options and see new possibilities.

Self-Advocacy: Self-advocacy means speaking up for what you want or need. This session introduces participants to the concept of self-advocacy and help participants understand how they might advocate for themselves in the future.

Self-Care: This session discusses the important ways that someone can take care of their body and be healthy in their home. Focus areas include keeping your body clean, listening to your body, and being healthy in your home.

Housing: Living independently may mean finding housing that fits an individual and their specific needs. This session helps participants explore options and resources for housing and plan for individual needs.

Technical Skills: Developing some technical skills can be an important part of community living. This session is designed to support participants in learning new technical skills, whether that is using a computer, getting online and using the internet, or using assistive technology.

Budgeting: Budgeting means not just having some money or income, but also understanding how to use money to help meet goals. This session will help participants understand what goes into their budget to stay on track.

Healthy Relationships: Everyone has experienced many different types of relationships in their lives. This session helps participants reflect on their relationships, discuss healthy communication, set boundaries, and set themselves up for success in healthy relationships.

Transportation: This session helps participants learn more about transportation options and resources so that they will be able to find ways to get to where they need to go and be as independent as possible in their community.

Time Use: Time management, or time use, means using one's time well. Using time well allows a person to meet their goals, build stronger relationships, and lower their stress. This session helps participants think about their time and utilize tools to stay organized.

Note: For additional information about the CLS sessions, please visit <https://healthycommunityliving.com/community-living-skills.html>

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