Community Recreation and Leisure Activities in Adults with Developmental Disabilities who have Recently Relocated to Community-based Residences in Ontario

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In 2009, the Ontario Government closed the last three remaining large-scale institutions for people with Developmental Disabilities (DD). The purpose of this study is to examine the community-based recreation and leisure activities of 87 adults with DD who have recently moved into the community. Study 1 provided a descriptive insight into the community recreation and leisure activities, and revealed that people with DD engage in low levels of community activities, however are reported to have the desire to engage more often. Staff reported that people with DD do not have the opportunities to engage in their preferable activities. Study 2 investigated the prospective predictors of the number and frequency of community, recreation and leisure activities and found that a higher level of functioning predicted a greater number of community activities ($\beta = .26, p < .05$), while both a higher level of functioning ($\beta = .38, p < .001$) and greater preference ($\beta = .23, p < .05$) predicted more frequent access to community activities. Future research and the implications of the findings for clinical practice and policy development were discussed.
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Community Recreation and Leisure Activities in Adults with Developmental Disabilities who have Recently Relocated to Community-based Residences in Ontario

There is a plethora of research examining the effect of relocation of individuals with developmental disabilities (DD) from large segregated institutions into smaller community-based residential settings. Deinstitutionalization and community-based living have been widely recognized and espoused (Johnson & Traustadottir, 2006). The policies and practices of deinstitutionalization are broadly based on the principles of normality and improving quality of life of people with DD (Johnson & Traustadottir, 2006). Community involvement in social and recreational activities has been utilized as a major indicator of social inclusion post relocation. Limited community involvement may have been inevitable in the institutions; however, this limitation may still persist with the move to community-based residences. Thus, a descriptive insight into the community involvement of recently deinstitutionalized adults with DD is essential to understanding their access to community, recreation and leisure activities now that they are living in the community.

Despite the closures of institutions in Canada, US, Australia and Europe, deinstitutionalization has been a controversial matter (Kim, Larson, & Lakin, 2001). Furthermore, the influence of deinstitutionalization on the lives of individuals with DD, in respect to community involvement, may be determined by a number of variables including age, challenging behaviours, level of functioning and health status. It is imperative to understand the factors and processes that influence whether and how individuals with DD engage in their community because this knowledge can be useful to service providers and policy makers in providing further community involvement which
may enable them to explore social, intellectual, emotional, communicative and physical opportunities.

**History of Deinstitutionalization**

There has been a long history of institutionalization of individuals with developmental disabilities across many developed countries (Johnson & Traustadottir, 2005). In Ontario, developmental disability (DD) is an umbrella term, which refers to the diagnosis of intellectual disability as defined by an IQ below 70 along with limitations in adaptive functioning and onset prior to 18 years of age; but also includes physical disabilities (AAIDD, 2011). The pattern of changes in service models for such individuals with DD living in developed countries remains consistent, such that, early attempts to replace institutions led to community-based group homes with approximately 3 to 8 people living together with help of direct care workers (Johnson & Traustadottir, 2005).

According to People First Canada (2006), “an institution is any place in which people who have been labeled as having an intellectual disability are isolated, segregated and/or congregated. An institution is any place where people do not have, or are not allowed to exercise control over their lives and their day to day decisions. An institution is not defined merely by its size”. Institutions, which grew during the first half of the twentieth century, were viewed as protection for society from the negative influence of individuals living with DD; and for the safeguard of people with DD from the negative attitudes of society (Walmsley, 2006). For example, the institutionalization of these people was proliferated by the eugenics movement, which suggested that people with DD pose a threat to society and could be best managed through institutional segregation.
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(Johnson & Traustadottir, 2005). Although eugenics played an imperative role in the development of institutional care, legislation and public opinion frequently favored institutionalization with the belief that it would enable functionality and quality of life (Johnson & Traustadottir, 2005).

Conversely, researchers have reviewed conflicting evidence, such that deinstitutionalization has been shown to enable functionality and quality of life. The process of deinstitutionalization, that is, the shift towards community-based living, has significantly improved overall quality of life among other outcomes, such as community participation, social networks, self-determination, and adaptive behaviour (Kim et al., 2001; Kozman, Mansell, & Beadle-Brown, 2009). This momentum of change is a relatively modern ideological shift which has been fuelled by committed advocacy groups, such that a rights culture has become entrenched as a component of support services provision in Ontario (Hartford, Schrecker, Wiktorowicz, Hoch, & Sharp, 2003). Moreover, the United Nations (UN) created an international legal framework, which sets out the right of people with DD to live in the community (United Nations, 2006). According to the Council of Canadians with Disabilities, in March, 2010, Canada has adopted and ratified the UN Convention of the Rights of Persons with Disabilities (CCD, 2010).

The UN Convention on the Rights of Persons with Disabilities (United Nations, 2006) recognizes the right to live in the community through article 19, which entails the provision of full inclusion of people with DD and their families including a range of in-home, residential and other community support services. This article highlights five significant rights for people with DD living in the community: to develop legislation that
will ensure and promote the full realization of all human rights and essential freedoms for all people with disabilities, without discriminations; to recognize the equal right of all people with disabilities to live in the community; to choose their place of residence and where and with whom they live on an equal basis with others not being obliged to live in a particular living arrangement; and to make certain full participation in the community and to prevent isolation or segregation (United Nations, 2006).

In accordance with the UN Convention, deinstitutionalization means having the right to choose where one lives and with whom; services that are directed and controlled by the person; respectful of the right to make choices that meet all identified needs; and the required disability related supports needed to completely participate in the community. Hence, habilitation encompasses improvement in functioning to the extent that an individual is able to live as independently as possible and experience a more normalized lifestyle (Bannerman, Sheldon, Sherman, & Harchik, 1990). Conceptually, the deinstitutionalization movement was influenced by the principle of normalization, which fosters the provision of services aimed at achieving a lifestyle more in line with choice and habilitation (Nirje, 1999; Wolfensberger, 1972). Consequently, residents of institutions should have the right to non-discriminatory and minimally adequate living conditions, treatment by the least restrictive means, and a residential atmosphere conducive to normalization. The concept of normalization provides guidelines describing residential circumstances for people with DD.

Over the past four decades, there has been increased emphasis on moving people out of the facilities and into the community. This latter component is based on Wolfensberger’s principle of “normalization”, which was later termed “social role
valorization”, that fostered the development of the community living movement in Canada in the 1960s and 1970s (Wolfensberger, 1972). Normalization is the “utilization of means which are as culturally normative as possible in order to establish and/or maintain personal behaviours and characteristics which are as culturally normative as possible” (Wolfensberger, 1972, p. 28). Providing individuals with DD the opportunity to live a normal life (Nirje, 1999) was well supported, however the implementation of deinstitutionalization was said to be controversial (Kim, Larson, & Lakin, 2001).

Contiguous to the principle of normalization, parent advocacy groups, human rights movements, shifts in political philosophies and legal actions played essential roles in the deinstitutionalization movement (Landesman & Butterfield, 1987).

Deinstitutionalization is not a policy particular to Canada. That is, deinstitutionalization has progressively become the standard of care in most developed countries, such that large segregated institutions have been replaced by less isolated services in the United States, UK, Australia and Canada. Initially the deinstitutionalization process was slow to develop, arising in the late sixties and early seventies and continuing today (Braddock, Emerson, Felce, & Stancliffe, 2001; Hartford et al., 2003). Though the application and histories of deinstitutionalization differ across these countries, the processes relate to the normalization principle. This philosophy of normalization for the betterment of life for individuals living with DD influenced the implementation of deinstitutionalization process around the world, more specifically in Ontario, Canada.

Support services in Ontario, Canada’s largest and most industrialized province, has recently shifted from the institution to the community (Hartford et al., 2003). Community residential supports for people with DD have expanded rapidly in Canada,
especially Ontario, over the past few decades. A catalyst for change was the end of the Progressive Conservative’s forty-year rule to a Liberal minister of health who appointed a working committee who developed the Graham’s report (Hartford et al., 2003). The Graham’s report recommended that each institution develop a plan for its programs until 1995, and that the province’s Ministry of Community and Social Services develop multi-year plans for the provision of support services in their community. Thus, transforming an institutionally based system into a community focused system.

In 1987, Ontario announced a Multi-Year Plan to close all “Schedule I Institutions” all of which were operated by the provincial government (Braddock, Emerson, Felce, & Stancliffe, 2001). Consequently, the closure of all sixteen institutions was announced and thus began community-based living. For instance, in 1991, Ontario supported 4,340 residents with DD in institutional facilities; and by the year 2000, the number of individuals in the three remaining Schedule I facilities declined to 1,200. This decrement suggests that this is a characteristic of developments across Canada. The Ministry of Ontario released a document providing three reasons for the continuation of phasing out the institutions (Government of Ontario, 1988). First, it was indicated that individuals with DD do not learn to live in the community by living in large segregated facilities. Second, these large isolated facilities did not cultivate family involvement. Third, the existing method of providing services was not cost-effective because the present facilities required copious amounts of renovation. Thus, there remained an increased interest in moving people out of the institutions and into the community.

In 2004, the pending closure of the last three institutions (i.e., Huronia Regional Centre, Rideau Regional Centre, and Southwestern Regional Centre) was announced.
Accordingly, the final phase of closures in 2009 completed this historic process that began in the early 1970s, that is, as of March 31st 2009, the last institution in Ontario was closed and all former residents are currently living in community settings. However, the deinstitutionalization movement’s success in meeting the original goals of the movement towards normalization still requires a plethora of research. Researchers have used various outcome measures to evaluate the success of deinstitutionalization.

**Outcome Studies on Deinstitutionalization**

A considerable amount of evidence has been collected on the effects of institutional reform or deinstitutionalization. The evaluation of community-based models of care for people with DD, compared with the institutions they replace, generally reveals that community-based services are superior to institutions (Stancliffe & Lakin, 1998). That is, the majority of deinstitutionalization studies have focused on the impact of relocation (Conroy, Spreat, Yuskauskas & Elks, 2003; Cummins, Polzin & Theobold, 1990; Emerson & Hatton, 1996; Young, 2006; Young & Ashman, 2004a, 2004b, 2004c; Young, Ashman, Sigafoos, & Grevell, 2001; Young, Sigafoos, & Grevell, 2000). Outcome measures are usually derived along five dimensions: adaptive behaviour, family contact or personal relationships, challenging behaviour, quality of life and community integration (e.g., Emerson & Hatton, 1996; Young & Ashman, 2004a). Although these outcomes are regarded as separate domains, they are fundamentally interconnected as one domain usually has a positive or negative impact on another domain. For example, research indicates increased adaptive behavior, improved contact with family and friends and greater community participation (Conroy et al., 2003; Young et al., 2001).
There have been a large number of pertinent studies that have been summarized in a series of reviews, which demonstrate these findings. Kim, Larson and Lakin (2001) reviewed 33 American studies between 1980 and 1999 on the behavioural outcomes of deinstitutionalization. Nineteen studies showed significant improvements in adaptive behaviour while two studies demonstrated significant decline in adaptive behaviour. For challenging behaviour, five studies found significant improvements while two studies demonstrated a significant worsening in behaviour. The remaining studies revealed that change was not significant; however eight reported a trend towards improvement while six reported a trend towards decline. Kozma, Mansell and Beadle-Brown (2009) reviewed 68 articles published between 1997 and 2007. In seven out of the ten outcome domains reported by researchers (i.e., community presence and participation, social networks and friendships, family contact, self-determination and choice, quality of life, adaptive behaviour, user and family views and satisfaction) the majority of the studies revealed that community living was superior to institutional care. However, in three outcome domains (i.e., challenging behaviour, psychotropic medication and health, risks and mortality) research demonstrated mixed or worse results. Similarly, Young, Sigafoos, Suttie, Ashman and Grevell (1998) reviewed 13 Australian studies between 1980 and 1995. In six of the nine domains (adaptive behaviour, client satisfaction, community participation, contact with family/friends, interaction with staff and parent satisfaction) the majority of the reviewed studies reported positive results after relocation, whereas for the remaining three (problem behaviour, community acceptance and health/mortality), studies reported no change. Emerson and Hatton (1996) reviewed 71 studies from the UK and Ireland from 1980 to 1996. Consistent with the aforementioned studies, their
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review revealed that deinstitutionalization is associated with increased engagement in activities, contact from staff, participation in community activities, adaptive behaviour and reduced levels of challenging behaviour. After examining the existing reviews, the general finding is that community-based service models for individuals with DD achieve better results than institutions. Community-based living has become the standard of care of individuals living with DD as a result of these strong research findings (Emerson, 2004) coupled with the tireless work of committed advocates in several countries. Because of the lack of research from Canada on the effect of deinstitutionalization on the lives of individuals living with DD, it is assumed that research carried out in the United States, Australia and the United Kingdom would be generalizable to Canada.

Adaptive behaviour

Studies on the deinstitutionalization of individuals with DD have commonly demonstrated improvements in adaptive behaviours. Adaptive behaviours are activities of daily living or the types of living skills that individuals are required to learn in order to promote more functional independence within their environment. Researchers reported on the closing of Challinor, which was an institution in Queensland, Australia (Young, Ashman, Sigafoos, & Grevell, 2001; Young, Sigafoos, & Grevell, 2000). Ninety-five individuals, with an average of 32 years of age in institutional care, were moved into the community. The preliminary report (Young et al., 2000) revealed no significant improvement in adaptive behaviors. However, their subsequent report in 2001 revealed significant improvements in adaptive behaviors, including choice making and improved life circumstances. Similarly, Young and Ashman (2004a) examined a group of 104 adults with severe profound DD who moved from Challinor. They were assessed once
with a variety of measures in the institution and then five times over two years following deinstitutionalization. Most demonstrated significant improvements in adaptive behaviors. Lerman, Apgar and Jordan (2005) examined 300 institutional residents in the United States who were assigned to two matched groups (150 movers and 150 stayers) for age and level of functioning. The movers demonstrated no change in cognition, communication, and social skills. However, the stayers displayed significant deterioration in these skill areas. In addition, movers had significantly improved self-care skills, while stayers demonstrated no change.

Stancliffe, Hayden, Larson and Lakin (2002) examined 148 deinstitutionalized adults with DD in the United States from 1990 to 1996. Seventy-eight adults moved to larger residents (6 to 15 residents) and 70 moved to smaller community residences for four individuals or fewer. The results indicated a decline in adaptive behaviour in the larger group residences and no change for individuals living in the smaller residences.

Personal relationships

The degree to which there is personal and family contact post relocation may impact the quality of life of these individuals. People with DD in community residences have larger social networks than do people living in large institutions indicating that there is a trend of increase contact with family and friends after relocation into the community (Emerson et al., 2001, McConkey, 2007; Robertson et al., 2001; Young et al., 1998). This is evident in research among 281 participants in a community-based residence. Results indicated that 85% of participants were reported to have a staff member as a friend, 71% reported a member of their family, 61% reported another person with DD and 44% reported a person who did not fit these categories in their social network.
Furthermore, approximately 50% of people in community-based residences had three or fewer people in their social networks (once paid staff had been excluded), and 10% had nobody. Only 4% reported that they had a friend without DD. Robertson and colleagues (2001) concluded that individuals with DD were very isolated, suggesting that community-based care services were not taking advantage of the increased opportunities found in the community. In fact, Burchard (1999) compared 27 adults with DD residing in supervised apartments with a matched group of non-DD adults (as cited in Lemay, 2009). The results revealed that there were no differences in the rate or type of activities, however the compositions of social networks were very different.

Bibgy (2008) examined 24 residents of a large institution who were presently living in group homes in the community. The results revealed that residents did not form new relationships after moving into the community and the number of residents in contact with their family members decreased after relocating to the community. Thus, more research is needed because of the unexplained variation in amount of social contact with family and friends after former residents of institution relocated to community-based residences.

**Challenging behaviours**

Studies examining the effects of deinstitutionalization on challenging behaviours (e.g. aggression towards others, self-injurious behaviors etc.) have yielded variable results (Mansell, 1994). For example, Mansell revealed that two people demonstrated an increase in challenging behaviours throughout the course of the study; two people showed no change and four people showed a decline in challenging behaviours throughout the study that was maintained after relocation into the community. As
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mentioned, Kim, Larson and Lakin (2001) reported that 3 out of 12 contrast group studies demonstrated improvement in challenging behaviours for deinstitutionalized individuals when compared with institutionalized individuals. Two studies reported deteriorations that were not statistically significant, while the remaining studies showed no significant change. A Norwegian study (Nottestad & Linaker, 1999) of 109 adults with DD who moved into the community indicated that 25 individuals who had no behavioral problems before relocation acquired these problems in the community. However, 24 adults displayed no problematic behaviors after relocation. Furthermore, 55 individuals who had behavior problems in the institution continued to exhibit them in the community. Another study revealed that after deinstitutionalization 104 Australian adults with DD demonstrated early decreases in challenging behaviors but after 2 years, behaviors returned to institutional levels (Young & Ashman, 2004a). Similarly, Young, Sigafoos and Grevell (2000) reported significant decreases in challenging behaviours among adults post-deinstitutionalization, however in their subsequent report (2001) they revealed that levels of challenging behaviours have returned to institutional levels.

Quality of life

Quality of life (QOL) is a composite and multi-dimensional concept that involves some of the domains previously discussed. Some of the most frequently referenced QOL domains are physical and emotional well-being, social inclusion, and recreation and leisure (Kozma et al., 2009). Generally, relocation to the community is associated with better QOL (Ager et al., 2001; Emerson & Hatton, 1996; Young, 2006; Young, Sigafoos & Grevell, 2000; Young et al., 2001); however there is significant variation among people and settings in terms of gains related with individual characteristics, such as staff
practices and service procedures (Young & Ashman, 2004b; 2004c). For instance, Dagnan, Ruddick and Jones (1998) found that there was a consistent improvement in QOL over a 41-month period in a sample of older individuals between the ages of 39 to 93 years with intellectual disability who have relocated to the community. Similarly, Young and Ashman (2004b; 2004c) found improvements in QOL, that is, community participation, social networks, activity levels, health, staff to resident ratios, and better service provision. Despite previous research, their findings revealed that regardless of location, service provider, age and level of intellectual disability, QOL improved.

Goals of Thesis

There has been an increased interest in the consequences of deinstitutionalization, such that there is more focus on whether there are positive outcomes after transition. A major criterion that has been utilized in the evaluation of residential services for individuals with DD is the opportunity to be involved in the community. That is, the importance within deinstitutionalization has been given to location of residential settings within the community, with the expectation that easier access to a greater range of community amenities and that greater proximity would also facilitate more frequent use (Felce & Emerson, 2001). For this reason, one area of concern is whether there is greater community involvement after relocation among recently deinstitutionalized individuals with DD. For the purpose of this study, community involvement entails the amount and variety of contact that an individual has with community activities and events (i.e., community, recreation and leisure activities) outside their home environment.

Previous research has focused on identifying the most important causal factors and the pathways by which they influence peoples' community involvement (Baker, 2007;
Felce & Perry, 1995; Hatton, et al., 1996; King et al., 2003; McConkey, 2007). An important first step is to identify these factors and to develop a comprehensive conceptual model of potential factors and their relationships to one another. King et al. (2003) developed a model on children with DD’s recreation and leisure participation. The model includes 11 environmental, family and child factors that are thought to influence children’s participation in recreation and leisure activities (see Figure 9). Environmental factors included the absence of physical and institutional barriers, supportive relationships for the child and supportive relationships for the parents. The family factors included the absence of financial and time impact on family, supportive family demographics, supportive home environment and family preference for recreation. Finally, the child factors included child self-perceptions of athletic and scholastic competence, child’s physical, cognitive and communicative function, child’s emotional behavioural and social function, and the child’s activity preference.

A unique feature of this model is its consideration of people’s preferences for community involvement. Additionally, the model contains both distal variables (environmental) and variables that are more proximal (individual) to the outcome of community involvement.

While the some factors in this model are relevant to adults relocating from the facilities (e.g. physical cognitive and communicative function, emotional, behavioural and social function), parts of the model are not (e.g. supportive family demographics, family preference for recreation, and supportive relationships for the parents). Nonetheless, a subset of the factors can be studied in this group in order to further our understanding of their influence on community involvement. Thus, this comprehensive
model incorporates the notions of preferences, functioning, competencies and the mechanisms of support and opportunity.

The purpose of the current study was to evaluate the community, recreation and leisure activities of adults with DD who have recently located from institutions in Ontario, Canada.

The following research questions were examined:

1. What is the current level of community involvement in adults with DD, and which factors facilitate or hinder access? Together with to what degree is there congruence between the activities people do the most and the ones that they like the most?

2. What factors influence the number and frequency of community, recreation and leisure activities people do the most?

Study 1

Purpose

The purpose of this study was to provide a descriptive insight into the level of community involvement for adults with DD. This goal was achieved in three ways. First, the frequency and average number of community, recreation and leisure activities across eight broad categories was calculated. Second, the frequency of activities in which an individual does and/or likes the most was presented. Finally, the degree to which there is congruence between the activities people like the most and the ones that they do the most often was reported.

Introduction
Deinstitutionalization represents one of the most profound social policy shifts in today's society. Residing in institutions can be an extreme practice of social exclusion, because it denies people with DD the choice and control over where and how they live. Conversely, deinstitutionalization is a major step toward the social integration or inclusion of people living in institutional care (Bostock, Gleeson, McPherson, & Pang, 2004). Although policy and researchers have used various terms such as inclusion, integration participation or involvement interchangeably, they are subject to multiple conceptualizations (Clement & Bigby, 2009). However, for the current study, the various types and frequency of community, recreation and leisure activities in which people engage are used as an indicator of community involvement.

**Community Involvement**

Although community involvement may imply extensive social participation, the frequency and range of community, recreation and leisure activities has often been measured in research as a basic indicator (Ager, Myers, Kerr, Myles, & Green, 2001; De Kock, Saxby, Thomas, & Felce, 1988; Dusseljee et al, 2011; McConkey, 2007; Robertson & Emerson, 2010; Zijlstra & Vlaskamp, 2005). Individuals living with DD have the ability to participate in leisure activities and to successfully engage at such a level so as to enable them to develop increased levels of confidence, skills, self-esteem (Patterson & Pegg, 2009) and social image (Allen, 1990). Moreover, when opportunities to participate in leisure activities were provided to adults with DD who had challenging behaviour, provision of leisure opportunities was associated with increased adaptive behaviour and collateral reductions in problem behaviours (Brown & Chamove, 1993; Sigafoos & Kerr, 1994). For example, over a two-hour period following an hour of
physical activity negative behaviour such as social withdrawn, stereotypy and aggression decreased by 24% from a mean rate of 62%; and positive behaviours increased by 66% from a baseline rate of 29% (Brown & Chamove, 1993). Thus, community involvement has additional benefits for the individual other than just community participation and presence.

Research has shown that older and less educated typically developing individuals have attitudes that reflect greater social distance towards individuals living with DD (Ouellette-Kuntz, Brown, & Arsenault, 2009). Thus, society may also benefit from the inclusion of people with DD in the sense that it may raise awareness of DD and possibly engender understanding and compassion (Cummins & Lau, 2003). Additionally, participation in activities can afford individuals with DD with many opportunities including an occasion for social interaction and friendship development, which are among the most important issues of concern to them (Cummins & Lau, 2003). However, individuals with DD do not have the same opportunities to socialize as their typically developing peers, though they may have the same desires to do so (Solish, Perry, & Minnes, 2010). Engaging in activities is important because of the negative impact of inactivity on various aspects of health (Robertson et al., 2000) and because of its relation with the development of social relationships (Mansell, Beadle-Brown, Macdonald & Ashman, 2003).

Direct-care staff have reported increased opportunities for community, recreation and leisure activities when individuals with DD reside in community settings than in institutional settings (Hundert, Walton-Allen, Vasdev, Cope, & Summers, 2003). This is not uncommon because most individuals with DD access community activities in
presence of staff (Baker, 2000). Going out to restaurants, attending church, and shopping are frequently mentioned activities post-relocation (Hayden et al., 1996), as well as, watching television and listening to music, physically oriented activities like swimming and playing games (Zijlstra & Vlaskamp, 2005). A sample of 10 adults with DD who recently relocated to the community-based residences in Southern England engaged in shopping (55%), eating and drinking out (19%), leisure or cultural activities (12%) and other activities (14%) (de Kock, Saxby, Thomas, & Felce, 1988). Another study reported that the types of activities that are most commonly engaged in includes walking, swimming, bowling, listening to music, playing with a ball and looking at magazines (Conneally, Boyle, & Smith, 1992).

Research has revealed that smaller community residences offer more community involvement to individuals with DD than did the larger institutional settings (Ager, Myers, Kerr, Myles, & Green, 2001; Baker, 2007; De Knock, Saxby, Thomas & Felce, 1988; Felce, De Kock, & Repp, 1986; Howe, Horner, & Newton, 1998; McConkey, 2007). However, the level of participation is still much lower than in the non-DD group (Myers, Ager, Kerr, & Myles, 1998; Verdonschot et al., 2009b). Young and colleagues (1998) identified six Australian studies that evaluated the impact of deinstitutionalization on the frequency of community activities for adults with DD. The results demonstrated that community-based residences promoted involvement in community activities. For instance, research examining 17 adults with DD examined the staff ratings of resident leisure activities (i.e., shopping, out-of-home recreational activity or personal leisure) during the previous month as compared to ratings completed when residents were in institutional settings (Hundert et al., 2003). The results revealed that leisure activities of
residents increased substantially post relocation. There is also evidence from longitudinal studies that the frequency and variety of community involvement for people in community residences continued to increase over time (Cummins, Polzin, & Theobold 1990). Similarly, Ager et al. (2001) employed a longitudinal design examining 76 individuals with DD in the United Kingdom and found that people moving from the institution to community homes increase their level of community participation; however, most outings took place in groups.

Research on the impact of deinstitutionalization has not only employed group designs, such as the aforementioned studies, but has also utilized single case designs revealing the significance of relocation. Using a multiple baseline across participants, Mansell (1994) examined whether the QOL, as measured by participation in meaningful activity, of individuals relocated from institutions to the community, improved. Results of this study revealed that 12 of the 13 participants demonstrated an increase in the overall level of participation in meaningful leisure activity, which was a statistically significant increase. Moreover, after relocation, individuals increased their level of participation by one-third and over six times their average baseline. Hence, as demonstrated through the use of large group studies employing cross-sectional and longitudinal designs and through the use of single case studies employing multiple baselines, community involvement is often measured by activities undertaken within the community (Mansell, 1994; McConkey, 2007; Myers, Ager, Kerr & Myles, 1998) and will similarly be measured in the current study. Despite the demonstrated increment in frequency of community involvement, evidence of participation in a variety of activities is limited.
A study of a sample of 76 recently deinstitutionalized individuals demonstrated a general increase in community presence, although activities requiring a high degree of personal autonomy remained infrequent (Ager, Myers, Kerr, Myles, & Green, 2001). Furthermore, in a review of studies from the United Kingdom and Ireland, 66% of the studies indicated that the use of community-based services (e.g., banks, stores, theatres, etc.) increased for those living within a community setting (Emerson & Hatton, 1996). However, the researchers suggest that these examples of community involvement may have been mainly superficial and rare. That is, in many community settings, as in institutions, people with DD spend large amounts of time unoccupied (Emerson & Hatton, 1996). It is important to remember that living in these community-based residences does not imply that individuals are actually involved and accessing their community. Their level of community involvement may be dependent on the residential services provided. Research has demonstrated that a total mean of 3.8 hours of leisure activities is provided, almost half of which includes watching television or listening to music. Hence, the results suggest that leisure for individuals with DD is severely restricted (Zijlstra & Vlaskamp, 2005).

Moreover, individuals with DD may have difficulties adapting to the transition due to relocation and thus it is necessary for time to elapse before assessment of community involvement. In fact, Dagnan, Ruddick and Jones (1998) revealed that there was no immediate increase in the number of community leisure activities 30 months post relocation, but there was a significant increase in leisure activity participation from 30 months to 41 months. Similarly, leisure outside the home in institutions was similar to leisure levels one month post-relocation into the community (55.6%) however, 6 months
after levels increased to 82.4% (Hundert et al., 2003). For this reason, levels of community involvement in a group of former residents from institutions who have relocated to community-based residences within the last five years will be examined in this study.

The practice in much evaluative research is to focus on residential settings, which reflects the field’s progression in the reform. Research has compared community to institutional settings moving progressively to comparing supported living schemes to group homes (Emerson et al., 2001; Felce, Lowe, Beecham, & Hallam, 2000; Howe et al., 1998; McConkey, 2007; Stancliffe & Kean, 2000; Stancliffe & Lakin, 1998). Felce et al. (2000) examined 34 individuals with DD in a cross-sectional study and found that people in community settings had higher community participation than did those in institutions. Stancliffe and Kean (2000) examined 54 people in an Australian study and revealed that people in semi-independent living arrangements used more community facilities than did people who lived in group homes. Similarly, other researchers have found that people in supported living schemes participated in more community activities than people in smaller or larger group homes (Emerson et al., 2001; Howe et al., 1998). Moreover, McConkey (2007) examined the influence of residential accommodations on community involvement on 620 individuals with DD in Ireland and the United Kingdom and revealed that people living in supported living (one to two people per household) or in a small group or residential home (less than 10 people in one house) demonstrated greater levels of community involvement as measured by their use of community amenities and social interactions than did those in campus settings which included groups
of houses accommodating six to eight individuals per unit and up to a hundred people on the same site.

Similarly, Felce, Perry and Kerr (2011) found that individuals living in staffed group homes demonstrated greater mean range and frequency Index of Community Involvement scores (i.e., greater community involvement) than people in independent living and family homes. In a case study of five individuals with DD recently relocated to group homes in Ireland revealed that during baseline the average number of outings per resident was 74 however after 2 years this increased to 141 per year (Conneally, Boyle & Smith, 1992); whereas De Kock, Saxby, Thomas and Felce (1988) reported an average annual rate of 254 events per year.

Burchard, Hasazi, Gordon and Yoe (1991) showed that the average number of weekly activities that took place in the community were considerably greater for people in one-to two person, unstaffed, but supervised apartments, than for people in three to six person staffed group homes. Likewise, Stancliffe and Keane (2000) reported greater frequency of community use among similar individuals living in one to four person, partially staffed accommodation compared to three to seven person fully staffed accommodation. Howe, Horner and Newton (1998) compared one to three person supported living arrangements and 2 to 20 individual traditional residential services (i.e., group homes) for adults in a matched group comparison and found that people in the former group undertook a greater variety of community activities. Similarly, Emerson and colleagues (2001) found that people living in supported living settings participated in more community activities than people living in settings regarded as traditional community group homes. Stancliffe and Lakin (1998) found no difference in the variety
of community activities undertaken by people living in state or privately owned six person group homes.

**Measuring Community Involvement**

Despite the number of studies on community involvement, there remains a challenge in comparing results across studies because of the lack of appropriate measures. Likewise, there is an implicit assumption from policy makers, service providers and researchers that a higher score on a measure, indicating more social integration, is better (Cummins & Lau, 2003).

Researchers have discussed the various methodologies that have been employed in the measurement of community participation and the use of leisure-based activities (see Baker, 2000; 2005; Cummins & Lau, 2003). Studies have employed the use of activity diaries, which have good face validity (Ager, Myers, Kerr, Myles & Green, 2001; Hewson & Walker, 1992). However, Joyce and Mansell (1989) advise caution when using diaries as a source of evaluative data. Using diaries, data are usually collected over relatively short periods of time (weekly), which reduces problems associated with observer drift. However, it only allows a record of the frequency of community contact with activities (Baker, 2000; 2005) and requires that staff take the time to record their client’s activities on a daily basis. The use of diaries may not be a superior method in measuring community involvement, and will not be utilized in the current study.

Another commonly used method is the use of direct observation of the individual by the researcher (Conneally, Boyle & Smyth, 1992; Holland & Meddis, 1993; Joyce & Mansell, 1989; Sigafoos & Kerr, 1994). This would provide a more accurate indication of the individual’s experience of their community, and has been shown to be reliable with
diaries (Dagnan, Howard, & Drewett, 1994). However, the duration of time a researcher is available to observe becomes problematic. In order to overcome this difficulty, Mansell's (1994) study involved the use of time sampling. Unfortunately, this method causes problems with regard to validity. That is, there is an increased probability of missing an activity other than those that are extremely frequent. Additionally, having a limited number of predetermined categories of activities may inevitably limit the true reflection of an individual's use of the community (Baker, 2000; 2005) as well as limits the extent to which comparison across studies can be done. Together with its intrusiveness and labour-intensiveness suggests that the use of direct observations may not be a superior method in measuring community involvement for the current study.

Researchers have used similar approaches investigating the longitudinal effects of deinstitutionalization of adults with DD (Stancliffe & Hayden, 1998; Stancliffe & Lakin, 1998). Direct-care staff were asked to indicate the number of activities from a list of approximately 20; however no psychometric or normative data were presented. Similarly, Hayden, Lakin, Hill, Bruininks and Copher (1992) examined the social roles and activities of people with DD. They asked direct care staff to rate the frequency of contact the person had with 28 leisure activities; however, validity, reliability and normative data were not reported.

The Index of Community Involvement (ICI; Raynes, S. J., & Pettipher, 1989) is an informant report and consists of 15 items, 14 of which establish whether clients have used specific facilities in the community within the past four weeks. The vast majority of studies have utilized the ICI (Ager, Myers, Kerr, Myles & Green, 2001; Emerson, 2004; Emerson & McVilly, 2004; Emerson et al., 2001; Felce, Lowe, Beecham,
& Hallam, 2000; Felce, Lowe & Jones, 2002; Felce, Perry & Kerr, 2011; Perry & Felce, 2005; Perry, Felce, Allen, & Meek, 2011). Although the ICI has acceptable internal reliability, there is no indication of test-retest or inter-rater reliability as well as no normative data were given. Additionally, the “Yes” and “No” format may be sensitive to a range of events but does not give any indication of frequency. Hence, there are concerns regarding the validity of ICI because of its limited sensitivity to frequency (Perry & Felce, 2005).

The Life Experience Checklist (LEC; Ager, 1990; 1998) has been developed as a measure of QOL and has been utilized in research (Ager, Myers, Kerr, Myles & Green, 2001). This informant report is applicable to a broadest range of individuals, with normative data provided for both typical and atypical populations. Validity and inter-rater reliability data were reported, along with test-retest data. Similarly, the Guernsey Community Participation and Leisure Assessment (GCPLA; Baker, 2000) comprises a checklist of 35 types and frequency of community activities over the past 6 months. Qualitative data were also collected on whether each activity was supervised, accompanied by others or was undertaken alone. The GCPLA has good reliability, validity and normative data. However, the GCPLA has only 35 activities, suggesting a restricted range of activities; and has infrequently been utilized in the literature. The Assimilation, Integration, Marginalization, Segregation Interview (AIMS; Minnes et al., 2002) is the most recently developed tool and involves ten aspects of integration which are rated by the caregivers. However, out of ten domains only three involve community activities similar to the current study (i.e., spiritual activity, social activity and
community involvement) and thus was deemed inappropriate for the current study as a measurement of community involvement.

The use of questionnaires or structured interviews to measure community involvement is appealing because of its ability to sample time periods, fewer issues with intrusiveness and the production of readily quantifiable data (Baker, 2000; 2005). Only the LEC, the GCPLA and the AIMS are quantifiable and have published reliability, validity and normative data. However, the LEC is a broad-based QOL measure and it contains only a few items relating to community presence and participation (Baker, 2005). Similarly, the GCPLA’s list of 35 activities is outdated (e.g., disco), has been used minimally in research and has a restricted range. Furthermore the AIMS is a measure of community integration and measures access to services inside and outside the home. The main emphasis of the current study was focused on community, recreation and leisure activities outside the home excluding health-based, educational and vocational services.

For the reasons outlined above, we developed a new measure of community involvement that would take into account the limitations of the aforementioned measures together with the ability to answer the current study’s research questions.

The Community, Recreation and Leisure Interview (CRLI; Condillac & White, 2010) is an unpublished measure designed to assess the community involvement of people with DD in community-based settings for the larger Facilities Initiative Study which will be briefly discussed in the proceeding section. The CRLI asks about an individual’s level of community involvement, including the amount and variety of contact that the individual has with community services and events outside their home.
environment across ten categories of activities. However, these activities are specific to community, recreation and leisure activities, and do not include access to health care and services and employment opportunities. These categories include attractions, practical opportunities, dinning and entertainment, visiting others, place of worship, passive leisure activities outside the home, outdoors activities, sports and recreation, leisure at home and hobbies. The CRLI reveals the degree to which activities are preferred; the frequency of the aforementioned activities; whether or not the individuals enjoy them; the amount of access they have; and the factors that facilitates and hinders community involvement.

Based on previous literature on measuring community involvement, the CRLI seems to have good face validity. An essential factor to measuring community involvement is how willing and capable are direct-care staff in identifying potential activities. Similarly, activities are primarily determined by staff, who inferred likes and dislikes from the residents' behaviours (Clement & Bigby, 2009). Moreover, whether people enjoy an activity or not should be the only criterion for judging the success of participation in community, recreation and leisure activities (Cummins & Lau, 2003). In fact, Robertson and Emerson (2010) examined a sample of 2784 individuals with DD between the ages 16 and 91 years. Forty-one percent of individuals played sports and all of them reported that they enjoyed it; of those who didn’t play sports, 34% said they would like to play. The most preferred activities reported are outings, education and work, relaxation and leisure; however the most disliked activities are household chores and having nothing to do (Forrester-Jones et al., 2002).

The aforementioned measures of community involvement should account for personal desires because community exposure alone may not epitomize true social
integration (Cummins & Lau, 2003). Hence, although people’s preference is recognized as an important aspect when examining community involvement, it has rarely been explored in the literature. The CRLI not only measures the person’s preference, it also reports on the factors that helps or hinders a person’s access to community activities. This has often been ignored in research. However, Buttmer and Tierney (2005) concluded that not having access to a leisure facility and not having the opportunity to get there (i.e., transportation) are barriers. Similarly, greater staff availability may increase resident opportunities to go out (Felce, Lowe, & Jones, 2002).

**Summary**

Community-based residences have been shown to be superior to institutional care. That is, deinstitutionalization is a foremost step toward the social inclusion of people living in institutions. The existing literature suggests that with increased opportunities to be engaged, former residents of institutions with DD generally demonstrate a greater number and frequency of community, recreation and leisure activities. Although there are numerous methodologies in measuring community involvement, they should be used with caution. Reporting on the number and frequency of activities alone does not reflect a person’s desire or preference. There is a limit to the duration and frequency of community, recreation and leisure activities that people enjoy, that is, this level will be idiosyncratic to some degree (Cummins & Lau, 2003). Hence, it’s important to utilize a measure that captures the complex picture of community involvement of former residents of institutions with DD.

Hence, the purpose of this study is to determine the current level of community involvement in adults with DD, and which factors facilitate or hinder access.
Additionally, to what degree is there congruence between the activities people *do the most* and the ones that they *like the most*.

**Method**

**Participants**

The participants in the present study were former residents from the last three institutions in Ontario (Huronia Regional Centre, Rideau Regional Centre, and Southwestern Regional Centre). Residents moved into community-based residences across the province within the last 5 years. The Ontario Ministry of Community and Social Services initially contacted the family members and former residents of the facilities through the current residential agencies supporting the former residents. Once consent to contact forms (see Appendix A) were received, letters of invitation were sent to agencies to participate in the larger quasi-longitudinal study on the Facilities Initiative (FI)\(^1\), examining the experiences of former residents of institutions across Ontario. Consents, providing information about the aim of the study and procedures, were received from substitute decision makers on behalf of the participants and direct-care staff (see Appendix B and C). The direct-care staff provided information on behalf of the participant and reported knowing the participant best. Furthermore, staff had full knowledge of their clients’ access to community activities including the activities accessed at day program. Data were collected on the first 87 participants that were visited from the larger quasi-longitudinal ongoing study.

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\(^1\) A team of researchers at Brock University under the principal investigators Dr. Rosemary Condillac & Dr. Dorothy Griffiths have been commissioned to carry out a study examining the impact of deinstitutionalization on individuals with DD in Ontario. The Facilities Initiative Study is a multi-method study, and these data were collected as part of Quasi-Longitudinal portion of the Study.
The FI project coordinators contacted agencies and group residences via telephone calls after the consent to contact forms were received. During the phone call, more information about the study was provided, and a tentative date was scheduled for a research assistant (RA) to visit the participant's home and collect data. Information packages and consent packages were then sent out. Consent from the participant's substitute decision maker and direct-care staff were collected prior to the visit. However, participant assent was acquired during the RA's visit to the participant's home using a standardized script. Once consents were received, the RA visit to the home was completed. During the RA visit, if the participant with DD engaged in any behaviour that signified distress with the process, then the RA would infer this as the participant wanting to withdraw from the study. However, this did not occur in this study. Additionally, the opportunity for subsequent withdrawal at any stage of the study was ensured and that all provided information would remain autonomous and confidential, kept in a secured storage facility at Brock University.

**Measures**

**Demographics.** The Current Management Strategies Interview (CMSI; Feldman, Atkinson, Foti-Gervais, & Condillac, 2004) is an open-ended interview designed to gather information on types of challenging behaviour and current treatments. The CMSI is divided into two sections, however for the purpose of this study, only section I was utilized. Information about the direct-care staff and their relationship to the client was collected for descriptive purposes only.

**Level of Functioning.** The Scales of Independent Behaviour-Revised (SIB-R; Bruininks, Woodcock, Weatherman & Hill, 1996) is a 259-item broad measure of
adaptive behaviour. The SIB-R was created to measure functional independence and adaptive functions in a variety of environments including home, educational, work and community. The SIB-R has been normed for use with individuals from early infancy to late adulthood and can be used to assess individuals with or without DD. The norms of the SIB-R provide the reference information to which an individual’s performance is compared and evaluated. Normative data for the SIB-R were gathered from 2,182 individuals from age 3 to 90 years in 15 states and more than 60 communities distributed throughout the US (Bruininks, Woodcock, Weatherman, & Hill, 1996).

The SIB-R contains 14 subscales distributed into four adaptive behaviour clusters: social interaction and communication skills (i.e., social interaction, language comprehension, language expression), personal living skills (i.e., eating and meal preparation, toileting, dressing, personal self-care, and domestic skills), community living skills (i.e., time and punctuality, money and value, work skills and home/community orientation) and motor skills (i.e., gross and fine motor skills).

These clusters form the primary interpretive level for the SIB-R; and each sub-scale has between 16 and 20 items ordered in ascending level of developmental difficulty and rated on a 4-point Likert scale ranging from Never or rarely – even if asked (0) to Does very well – always or almost always – without being asked (3). The sum of item scores becomes the raw score for each subscale. The Broad independence score is a measure of overall adaptive behaviours or functional independence and is based on the average of the four different areas of adaptive behaviours.

The Problem Behaviour Scale provides a general summary of eight problem behaviour areas organized into three broad maladaptive behaviour indexes. The indexes
include: Internalized Maladaptive Behaviour (e.g., hurtful to self, unusual or repetitive habits, and withdrawn or inattentive behaviour), Asocial Maladaptive Behaviour (e.g., socially offensive behaviour and uncooperative behaviour), and Externalized Maladaptive Behaviour (e.g., hurtful to others, destructive to property, and disruptive behaviour). The General Maladaptive Behaviour is a composite of the three indices. Individual problem behaviours are scored as either present or absent. If a problem behaviour is present, then frequency and severity scores are obtained. The index scores for each subscale and the total score provide ratings of the seriousness of the problem behaviour as normal, marginally serious, moderately serious, serious or very serious.

As denoted in the SIB-R manual (Bruininks, Woodcock, Weatherman, & Hill, 1996), results from an individual’s adaptive behaviour and problem behaviour assessments are combined to produce a Support Score. The Support Score helps researchers determine the overall intensity of resources, needed support, and improving and/or maintaining an individual’s functional independence across settings. There are six broad levels of needed support across the range of this scale. Higher scores reflect increased functional independence and decreased needs for support, help, supervision or special training. Lower scores indicate a need for higher intensity of support due to limited adaptive behaviour, excess problem behaviour or a combination of these two areas. These broad levels of support include: infrequent or no support (i.e., least support), intermittent, limited, frequent, extensive and pervasive (i.e., most support). For the purpose of this study, the standard support scores will be utilized to describe the current participant’s level of functioning.
The SIB-R manual denotes numerous studies that have demonstrated its psychometric characteristics (Bruininks, Woodcock, Weatherman, & Hill, 1996). The authors found that median split-half reliabilities for the adaptive behaviour subscale ranged from 0.74 to 0.98 in a sample of 365 individuals ages 20 to 90 years. Additionally, all reliabilities exceeded .90 and the coefficients were mostly in the high .90s. Median reliability coefficients for cluster and total scored across samples and age levels of populations with disabilities were in the middle to high .90s; and test-retest reliability coefficients ranged from 0.96 to 0.97 (Bruininks et al., 1996). Reliability and validity are also excellent for the maladaptive behaviour scales. The reliability coefficients for the four Maladaptive Behaviour Indexes ranged from .57 to .87, whereas the Support Score correlation between raters was .91 in a sample of 30 children aged 6 to 13 years (Bruininks et al., 1996).

The manual revealed extremely high correlations (i.e., high .90s) between the SIB and the SIB-R for a sample of 1,764 individuals of all ages. This suggests that the earlier validity studies on the original SIB are generalizable in evaluating the validity of the SIB-R. Furthermore, there is a high correlation (.96) between the Inventory on Client and Agency Planning (ICAP; Bruininks et al., 1986) and the SIB-R across several age samples (Bruininks et al., 1996).

The SIB-R has two forms of administration: an interview-administration procedure and a checklist procedure. However, for the purpose of this study, the easy to complete and reliable checklist administration procedure was used.

**Challenging behaviour.** The Behaviour Problems Inventory (BPI; Rojahn, 1984) was utilized. The BPI is a 52-item rating instrument for measuring self-injurious,
stereotypic and aggressive behaviour in persons with DD; and is a quality measure for evaluating problem behaviours in individuals with DD. Currently the checklist consists of 14 different self-injurious behaviours, 24 stereotypic behaviours and 14 aggressive and destructive behaviours. Each item was scored on two scales, a five-point frequency scale ranging from Never (0) to Hourly (4) and a four-point severity scale ranging from No problem (0) to a Severe problem (3). If a behaviour did not meet the criteria, “never/no problem” was checked. For the purpose of this study, the frequency and severity scores of the self-injurious, stereotypic and aggressive/destructive scales were added to yield an overall problem behaviour score, with greater scores indicating more problem behaviours. The prevalence of challenging behaviours was reported.

Reliability and validity for the BPI has been established for adults with intellectual disabilities in the literature. Confirmatory factor analysis and item-total correlations supported the three a priori factors (Rojahn, Matson, Lott, Esbensen & Smalls, 2001). Rojahn et al. (2001) revealed test re-test reliability for the full-scale score of .76, internal consistency with an $\alpha$ of .83. The subscales had alphas of .61 (SIB), .79 (Stereotyped Behavior), and .82 (Aggression/Destruction), respectively. Additionally, the BPI has a between-interviewer agreement of .92.

Moreover, factor and criterion validity have also been established (Rojahn et al., 2001). Validity results indicate that the aggressive/destructive subscale had an $r$-value of 0.55, while the self-injurious and stereotypic subscales scored $r = 0.21$ and $r = 0.32$, respectively (Gonzalez et al., 2009; Rojahn et al., 2001).

**Community involvement.** The Community, Recreation and Leisure Interview (Condillac & White, 2010) is an unpublished measure that was designed specifically for
the purpose of the larger quasi-longitudinal study (see Appendix D). This interview
surveys an individual’s level of community involvement, which entails the amount and
variety of contact that the individual has with community services and events outside
their home environment, across ten broad categories of activities. These categories
include attractions (i.e., art shows, fairs, concerts etc.), practical opportunities (i.e.,
grocery shopping, pharmacy, banking etc.), dinning/entertainment (i.e., movies, pubs,
cafe etc.), visiting others (i.e., going to a friend’s house, immediate family’s home etc.),
place of worship (i.e., church, temple, mosque etc.), passive leisure outside the home (i.e.,
car rides, going to the mall etc.), outdoor activities (i.e., hiking, beach, camping etc.),
sports/recreation (i.e., swimming, bowling, basketball etc.), leisure at home (i.e., TV,
movies, computer etc.) and hobbies (i.e., crafts, collecting, knitting etc.). Informants are
then asked to determine the degree to which activities are preferred; the frequency of the
aforementioned activities; whether or not the individuals enjoy them; the amount of
access they have; and the factors what helps/hinders access of activities. For the purpose
of this study, only the first eight categories (i.e., excluding leisure at home and hobbies)
will be used as a measure of community, recreational and leisure activities outside the
home.

First, the respondent is asked which activities the participant engages in, which is
embedded in a checklist format. From the activities chosen, the respondent chooses the
activity the individual does the most and likes the most. There are four questions that
follow each (i.e., likes versus does the most): 1) “Does the person enjoy these activities”
which is on a 5-point likert-scale (e.g., 0 = “Resists”, 2 = “Tolerates”, 4 = “Actively
Enjoys”); 2) “How often does the person participate in these activities” and is rated on a
5-point likert scale from 0 (Never) to 4 (Daily); 3) “Does the person have as much access to these as they would like” which is on a 5-point likert-scale (e.g., 1 = “Too Little”, 3 = “Just Right” and 5 = “Too Much”); and 4) “What helps or hinders access to these activities”. The last question is answered based on following: Cost, Availability, Convenience, Transportation, Person’s Behaviour, Person’s Mobility, Person’s Health, Other’s Behaviour, Other’s Mobility, Other’s Health, Staff Ratio and Staff Preference; and whether these factors helps (+), hinders (-) or Strike through (no effect) on the individual’s access to these community activities. However, for the purpose of this study, only the factors that help and hinder access to the activities will be described.

Based on aforementioned literature on measuring community involvement, the CRLI seems to have good face validity. The CRLI does not only measure the range and frequency of community, recreation and leisure activities, similar to the history of measures of community involvement; but also measures direct-care staff perception of the person’s preference (i.e., likes/does the most) and the factors that help and hinder access to these community activities.

Research Assistant Training

The RAs for the current study were graduate students in the Applied Disabilities Studies and/or professionals in the field of DD. The RAs completed a day training during which an explanation of all the measures for the present study (i.e., CMSI, SIB-R, BPI and CRLI) were explained and an opportunity to practice was provided.

Procedure

The following procedures were administered.
1. Once consent-to-contact forms were received, prospective participants and their direct care staff were contacted. After thoroughly explaining the study, consent was obtained per the recruitment and consent procedure described above.

2. Once consents were returned and signed, appointments were scheduled and staffed.

3. At the visit, the RA ensured that all consents were signed and that pre-visit measures for the larger FI study were completed. The research assistant used a standardized script to obtain assent from the participant with DD who was participating in the study if a substitute decision maker had provided consent.

4. The visit took place and all measures were completed by the trained RAs who administered the assessment forms and interviewed the direct-care staff members. Additional measures that are part of the larger study were also completed at that time. Assessment and interviews were conducted in a five-hour visit to the participants’ residence.

Residents were present at all interviews and their participation was encouraged by interviewers and supported by direct care staff. However, their participation varied inevitably according to their ability.

Research Design

A cross-sectional design was employed, such that the participants were assessed on the basis of their level of community involvement at the same time point. A descriptive insight into the number and frequency of community, recreation and leisure activities experienced by the recently relocated community-based residents was investigated.

Results
Description of Sample

Eighty-seven participants and their direct-care staff participated in the present study. Informants reported knowing participants for a mean of 2.59 (SD = 1.81) years and having worked in the field of DD for over a decade (M = 15.02, SD = 7.96).

Thirty-eight females and forty-nine males between the ages 33 and 77 participated in the study. Specifically, there was one participant (1.1%) aged 30-39; twenty participants (23%) aged 40-49; forty-six participants (52.9%) aged 50-59; thirteen participants (14.9%) aged 60-69 and seven participants (8%) aged 70-79. Prior to moving to the community, participants resided in institutions across Ontario for an average of 42.15 (SD = 10.22) years. In fact, 35.3% of the present sample resided at Rideau Regional Centre, 30.6% at Huronia Regional Centre and 34.1% at Southwestern Regional Centre giving an almost equal representation from these institutions. At the time of the visit, participants have been living in urban and rural community-based group homes in Ontario for approximately five years (M = 2.84, SD = .97) with an average number of 3.92 co-residents (SD = 2.64).

Two participants were reported to require the least amount of support (intermittent) as denoted by the SIB-R (Bruininks, Woodcock, Weatherman & Hill, 1996) hence presenting with borderline adaptive behaviour deficits. Six participants had mild deficits, scoring in the limited support category. There were twenty-four participants with moderate deficits requiring frequent support, and thirty needing extensive support and having severe deficits. Twenty-two participants scored the highest support level score, pervasive, indicating profound deficits. The SIB-R’s for three participants were never returned.
Furthermore, the vast majority of the sample presented with challenging behaviours, as measured by the BPI (BPI; Rojahn, 1984). Fifty-four (65.1%) participants were reported displaying varying levels of self-injurious behaviour; whereas seventy-one (86.6%) participants were described as demonstrating various levels of stereotypic behaviours; and forty-six (55.4%) participants were reported exhibiting variable levels of aggressive/destructive behaviours.

Community Involvement

The mean number of community, recreation and leisure activities accessed across eight broad categories by the whole sample is displayed in Table 1. Participants were reported to access an average of 21.41 (SD = 6.99) different activities throughout the year prior to the visit. People were reported having engaged in more practical opportunities, dining and entertainment activities, outdoor activities and attractions.

Attractions. Fairs, sporting events, amusement parks and concerts are the most frequently accessed attractions, as shown in Table 2. Interestingly, those same activities were frequently reported as the activities people do and like the most. Direct-care staff reported that approximately half of the participants were reported to “actively enjoy” the attractions they do and like the most, however, only accessed these on a yearly basis (see Table 3). Additionally, most participants’ access to attractions was reported to be “just right”.

Practical opportunities. As shown in Table 4, errands, clothes shopping, hairdresser/barber, grocery shopping and banking were the most frequently accessed practical opportunities. Similarly, these practical opportunities were reported as the activities people do and like the most. Based on direct-care staffs’ perception, as
displayed in Table 5, over a third of participants were reported to have “actively enjoyed”
the practical opportunities they do the most; whereas more than half were reported to
have “actively enjoyed” the ones they like the most. Approximately half of participants
were reported to access these opportunities on either a weekly or monthly basis, which
was reported to be “just the right” amount of access for the majority of participants.

**Dining/entertainment.** The frequencies of dining and entertainment activities are
displayed in Table 6. The most commonly accessed activities were restaurants, fast food,
donut shops, movies and dances. These activities were also reported as the activities
people do and like the most; however, people access donut shops more, but prefer
restaurants and fast food. As revealed in Table 7, the vast majority of participants were
reported to “actively enjoy” the dining and entertainment activities they do and like the
most, accessing these on either monthly or yearly. Although a third of direct-care staff
reported that their clients’ access was “just right”, the majority perceived that they had
“too little” access.

**Visiting others.** As shown in Table 8, participants often visited the homes of
friends with DD and their immediate family’s home. These activities were similar to the
activities they do and like the most. Interestingly, sixteen people did not visit others. Of
those who did, about half of the participants were reported to “actively enjoy” the visiting
others activities they do and like the most; however some people did “resist” these
activities (see Table 9). Direct-care staff reported that roughly half of participants visit
others monthly, while some only visit yearly. Although access was reported to be “just
right” for half, the other half were reported to have “too little” access.
Place of worship. Approximately half of participants went to church, however people also went to fellowship and friendship clubs, but nobody went to a mosque or a temple (see Table 10). These activities were also reported as the ones they do and like the most. More than half of people were reported as not engaging in any of these activities. For the place of worship activities people do and like the most, as shown in Table 11, almost half “actively enjoyed” them, accessing them weekly. The vast majority of direct-care staff perceived their access to be “just right”.

Passive leisure outside the home. The frequencies of passive leisure activities outside the home are reported in Table 12. Car rides and going to the mall were frequently reported activities, similarly these were the most frequently reported activities people do and like the most. As shown in Table 13, direct-care staff reported that more than half of their clients “actively enjoyed” the activities they do and like the most, accessing them more often weekly, with some people engaging on a daily basis. Although access was reported to be “just right” for half, the majority of others reported that they had “too little” access.

Outdoor activities. Going to the local park, walking, visiting a conservation area and going to the beach were frequently reported outdoor activities (see Table 14). However, more than half of the participants engaged in walking the most, whereas more people liked going to the local park. Based on direct-care staff perception, as shown in Table 15, only 40.2% of people were reported to have “actively enjoyed” the activity they do the most, whereas the vast majority were reported to have “actively enjoyed” the activity they like the most. Most people were reported to access these activities weekly or month, however 18.4% were reported engaging in their preferred activity only yearly.
Although access was reported to be "just right" for half, the majority of others perceived that they had "too little" access.

**Sports/recreation.** The frequency of sports and recreational activities are shown in Table 16. Swimming and bowling were frequently reported sports and recreation activities. Despite engaging in a variety of activities, swimming and bowling were reported as activities people *do* and *like* the most. In fact, about 20% of the whole sample did not engage in any sports and recreation activities. Direct-care staff reported that more than half of the participants "actively enjoyed" the activities they *do* and *like* the most (see Table 17), with the vast majority of people having the opportunity to access these opportunities weekly. More than half of participants were reported to find their access to sports and recreation activities that they *do* and *like* the most to be "just right".

**Factors that Help Access**

The factors that direct-care staff reported that facilitates access to the activities people with DD *do* and *like* the most are presented in Tables 18 and 19, respectively. The top four factors that help in accessing the activities across the eight broad categories were ranked based on the most frequently reported factor that helps access.

**Do the most.** Transportation was ranked first for six out of eight categories; followed by convenience, which was ranked second for five out of eight categories. Availability was ranked third for five out of seven categories; and the range of cost was ranked from two to four for five out of eight categories. Interestingly, person's mobility, person's health, staff ratio and staff preference ranked as fourth for one out of eight categories.
Like the most. Staff ratio was ranked first for six out of eight categories, while person’s behaviour ranked second for five out of eight categories. Other’s behaviour ranged from two to four but ranked third with four out of eight categories. Furthermore, staff preference, person’s mobility and cost ranked four for two out of eight categories each. Availability ranked one for attractions, visiting others and place of worship, and two for sports and recreation but did not rank top four. Additionally, convenience ranked second for only attractions.

Factors that Hinder Access

The factors that hinder access to the activities people do and like the most are presented in Tables 20 and 21, respectively. The top four factors that were reported as a barrier to access the activities across the eight broad categories were ranked based on the most frequently reported factor that hinders access.

Do the most. Transportation was ranked first for seven out of eight categories, while convenience was ranked second for six out of eight categories. Cost and availability equally ranked third with three out of three categories for the latter and three out of six categories for the former. However, availability also ranked fourth for two categories (i.e., visiting others and outdoor activities) and second for attractions. Person’s behaviour ranked fourth for four out of five categories, whereas person’s mobility ranked fourth on only attractions.

Like the most. For the activities people like the most, staff ratio ranked first for five out of eight activities, while person’s behaviour ranked second with four out of six categories. Other’s behaviour ranked both third and fourth for four out of eight activities each. Cost ranked fourth for attractions and dining and entertainment only. Furthermore,
availability ranked first for attractions, visiting others, and place of worship; however it ranked fourth for passive leisure, and second for outdoor activities and sports and recreation. Lastly, person’s mobility ranked fourth for practical opportunities, while person’s health ranked fourth for place of worship.

Preference

The degree to which there was congruence between the activity people do the most and the one they like the most was measured by giving each participant a score of one if the activity they do the most was the same as the reported activity they like the most. This was done across all eight categories, for a total score out of eight. A score of one indicated low congruence and a score of eight indicated high congruence. When examining the degree to which there is congruence across categories between the activity people do the most and the one that they like the most, as shown in Table 22, there was a higher degree of congruence for sports and recreation, place of worship, visiting others, and passive leisure outside the home than for the rest of the categories.

The summed congruence score ranged from three to seven for the majority of the participants. In fact, more than half of the sample had a score of either four or five, indicating that for most participants, the activities people liked the most were the activities they actually did the most for approximately half of the categories of activities (See Table 23). Furthermore, there were a slightly higher number of people reflecting higher congruence (score 6 to 8) than lower congruence (score 1 to 3).

Discussion
This study investigated the community, recreation and leisure activities of adults with DD who have relocated from institutions and into community-based residences in Ontario within the past 5 years.

Staff reported that people engaged in more practical opportunities, dining and entertainment, outdoor activities and attractions than visiting others, place of worship, passive leisure outside the home and sporting and recreational activities. Across the eight broad categories, the four highly reported activities people do the most in each category were the activities staff said people like the most, with the vast majority of staff reporting that their clients were “actively enjoying” these activities. Similarly, the majority of staff conveyed that clients’ access was “just right” for attractions, practical opportunities, place of worship and sports and recreation whereas, their access ranged from “just right” to “too little” for activities like dining and entertainment, visiting others, passive leisure outside the home and outdoor activities.

In fact, most staff reported that only passive leisure activities were accessed on a weekly to daily basis, with people accessing place of worship and sporting and recreational activities weekly; outdoor activities, practical opportunities and dining and entertainment activities weekly to monthly; visiting others monthly to yearly and attractions only yearly. Reflecting these results, it is plausible that there is a lack of opportunities for people to engage in these activities on a more frequent basis.

Considering the utmost reported activities people do the most are the activities people like the most, only one person received a perfect preference score on all eight categories. That is, most people received a perfect score on approximately half of the categories with the highest congruence for outdoor activities, passive leisure outside the
home, dining and entertainment, and practical opportunities. This suggests that perhaps there should be a greater focus on preference not only within the literature, but also in practice.

Interestingly, the most frequent facilitating factors reported for the activities people do the most were similar to the frequent factors hindering access to those same activities. For example, transportation, convenience, cost and availability were highly reported as both facilitating and hindering factors for the activities people do the most. However, the person’s mobility and health, and staff ratio surfaced for facilitating factors, whereas the person’s behaviour was revealed as a barrier. This was also the case for the activities people like the most. The most frequent facilitating and hindering factors reported were staff ratio, person’s behaviour, other’s behaviour and cost. However, staff preference, person’s mobility, availability and convenience were facilitating factors for the activities people like the most, whereas availability and person’s mobility and health were reported as barriers.

Living in community-based residences does not necessarily equate success in community involvement. When compared to the frequency of different activities accessed in the McConkey (2007) study, the current study found similar but lower than expected levels of community involvement experienced by people with DD. It could be that people who remain in institutions or who have recently relocated into the community tend to have somewhat high support needs, either because they require higher levels of support to fulfill daily activities or because of their high rates of challenging behaviour (Lakin, Larson, Prouty & Coucouvanie, 2002). In fact, the prevalence of challenging behaviours in the current study’s sample is high for all three scales (self-injurious,
stereotyped and aggressive/destructive) of the BPI (Rojahn, 1984). With research reporting a negative relation between frequency of community activities and level of challenging behaviours (Felce et al., 2000), it is plausible that high rates of challenging behaviours influenced the lower levels of community involvement.

Similarly, the literature suggests that engagement in activity is significantly and positively correlated to adaptive behaviours (Felce et al., 1999; Felce & Perry, 1995). Additionally, other research has shown that adaptive behaviour was positively associated with the frequency of social and community activities (Felce, Lowe, Beecham, & Hallam, 2000; Felce, Lowe & Jones, 2002; Felce & Perry, 1995; Hatton et al., 1996; Stancliffe & Lakin, 1998). Hence, according to the SIB-R in the current study, the vast majority of participants in this study were functioning at the moderate to profound range, perhaps providing reason for their lower levels of activity. However, participation of people with DD in community and social life increases when they have lived in the community for a longer period of time (Verdonschot, de Witte, Reichrath, Buntinx, & Curfs, 2009), thus it is plausible that the adults in the current study may have more opportunities later.

We were unable to determine if deinstitutionalization has caused a change in community access for the current participants because we unfortunately do not have a pre-relocation measure of community involvement. Furthermore, data were not collected on a comparison group to see if their level of community involvement was approaching "typical" lifestyle for people with DD. For instance, when compared to a non-DD group, people with DD had more restricted daily activities, less participation in community life and lower levels of social contact. However, the group with DD became significantly more similar to the non-DD group after relocation into community-based residences.
(O'Neil, Brown, Gordon, & Schonhorn, 1985; Myers et al., 1998; Verdonschot et al., 2009). Thus, the current study only provides a snapshot into the community, recreation and leisure lives of previous residents of institutions in Ontario.

This study is consistent with the developing literature documenting the gap in the experience of people with DD being physically versus socially integrated within the community (Ager, Myers, Kerr, Myles, & Green, 2001; Solish, Perry, & Minnes, 2010). That is, when considering opportunities for people with DD to engage in activities, it is important to differentiate between the two. Social integration benefits all people involved, in that they are participating in activities and their needs are being met; whereas physical proximity does not ensure that people with DD are socially included or that true integration is occurring (Solish, Perry, & Minnes, 2010). Thus, it may be of importance to consider with whom people with DD are participating in activities. For example, the majority of people with DD participate in a least one activity in the community, however direct-care staff usually accompanies them with most activities taking part with co-residents (Verdonschot et al., 2009; Ager et al., 2001).

A key factor identified in the literature seems to be how willing direct-care staff are to identify potential activities that support community involvement. Participation in community activities may lead to increases in friendship development (Solish, Perry, & Minnes, 2010). However, Perske (1993) argues that direct-care staff cannot create friendships for people with DD, but they are able to take people with DD to more places in the community, where the likelihood of friendship development is high. Activities that occur on a weekly basis would likely increase the number of opportunities to make friends given peoples' inherent preference for routine. Interestingly, in the current study
only place of worship and sporting and recreational activities were engaged in on a weekly basis. Additionally, people with DD are more likely to engage in activities with friends who also have a DD than with friends who do not have a DD (Emerson & McVilly, 2004). This is not surprising considering the vast majority of staff reported that their client’s visited the homes of friends with DD the most, while only five people visited the homes of friends without a DD.

Upon examination of the facilitating and hindering factors of community involvement in the current study, staff ratio was found to both positively and negatively influence the activities people like the most, which is consistent with the literature. Given that a higher staff to resident ratio would likely provide more attention, it is reasonable that the more attention that direct-care staff provide the more they will be aware of people’s wishes and the more they will provide opportunities for choices. Felce, Jones, Lowe and Perry (2003) found that higher resident engagement in activity was associated with greater receipt of attention from staff. Similarly, transportation has been identified as facilitating and hindering factor on participation especially with respect to activities. This is not surprising considering that staff also perceived the person’s mobility as an influencing factor.

Expenses (i.e., transportation costs and entrance fees) may prohibit people with limited incomes from accessing community activities, residents and staff alike. This may provide reason for the current study’s participants going to attractions on a yearly basis. However, other factors that are not accounted for in our measure, but have been shown in the literature, are greater family environment and the availability of social support will likely increase community involvement (Ashworth, Martin, & Montague, 2010; Felce,
Lowe, & Jones, 2002; Verdonschot et al., 2009). Additionally a negative attitude of people in the community may have a negative influence on community participation, as well as a positive staff attitude has positively correlated with community integration (Verdonschot et al., 2009).

The importance of the staff seems to be a key facilitating factor for the activities people like the most. Direct-care staff should be able to assist people to utilize community involvement opportunities (Myers et al., 1998), and thus a higher staff-resident ratio could positively influence community participation in community, recreation and leisure activities. However, it may be plausible that volunteers and family members could also play an imperative role.

Over half of the direct-care staff reported that place of worship was not applicable to many of their clients. Although this finding may reflect the limited opportunities in the community, it may also reflect the staffs’ assumption that the participants are not able to comprehend the concept of place of worship. This may explain the low rates of participation, however, participants may also not be interested in this activity.

As previously noted, deinstitutionalization was influenced by the principle of normalization, which states that everyone has the same rights. It is reasonable that with the onus to conform and the services that enable them to do so, there is a risk of imposing goals, which may be at odds with the goals of the people with DD. Thus, a measure of preference is required to avoid the pressures people with DD may feel to conform to society’s levels of community involvement. The current study sought out to measure staff perception of preference and revealed that the majority of participants are doing the activity they like the most across only half of the categories. There is a possibility that
some of the barriers revealed in this study are influencing the people’s desires to engage in the activities they like the most.

In conclusion, generally, the activities people do the most were found to be the ones they like the most, with their reported access to be “just right”. Despite only passive leisure activities being accessed on a weekly to daily basis, other activities were only accessed from weekly to yearly. Considering that the most frequent activities people do the most are the activities people like the most, only one person received a perfect preference score on all eight categories. People with DD who have recently moved out of institutions will require a higher profile in community service planning with more consideration given to their daytime community, recreation and leisure needs. We should address every domain in their lives and not only where they are living. More specifically, the relations among individual characteristics and community involvement for people who have been living in the community may shed further light onto the complex picture of community involvement for formers residents of institutions.

Study 2

Purpose

The purpose of this study is twofold. First, it will examine the factors that predict the number of community, recreation and leisure activities that people do. Second, it will examine the factors that predict the frequency of community, recreation and leisure activities that people do the most. The factors that will be explored in both analyses are age, level of functioning, health, challenging behaviours and preference.

Introduction
Deficits in adaptive behaviour are a defining characteristic of DD; and the presence of such deficits can severely impact a person’s quality of life (Felce & Emerson, 2001). However, limited research has been conducted regarding the examination of associations among individual characteristics and community involvement for people who have been living in the community for some time (Perry & Felce, 2005). The majority of research has focused on environmental factors, such as setting size. That is, more frequent community involvement is related to smaller setting size (Felce, Lowe, Beecham, & Hallam, 2000; McConkey, 2007). Conversely, other researchers have not found this association (Felce, Lowe, & Jones, 2002; Stancliffe & Lakin, 1998).

Although setting characteristics play an imperative role, researchers have not examined the impact of individual characteristics, which are often confounded with the setting characteristics being evaluated (Perry & Felce, 2005). For example, factors such as age, length of stay in the institution, as well as levels of adaptive and challenging behaviours, may be associated with community involvement (Baker, 2007; Felce & Emerson, 2001; Stancliffe, Hayden, Larson, & Lakin, 2002). “There is still limited understanding of whether the dimensions typically used to classify settings in comparative research are the most relevant in terms of explaining outcome” (Felce & Emerson, 2001, p. 76). In fact, adaptive behaviour explained approximately 30% of the variance in scores on the frequency of community activities as measured by the ICI (Felce, Lowe & Jones, 2002; Perry & Felce, 2005). Hence, it’s especially important to consider the influence of individual characteristics when examining the level of community involvement post-relocation.

**Predicting Community Involvement**
The evaluation of community-based models of care for people with DD, compared with the institutions they have replaced, generally reveal that community residences are superior to institutions (Kim, Larson, & Lakin, 2001; Young, Sigafoos, Suttie, Ashman, & Grevell, 1998). Nevertheless, the overall representation of improved outcomes for deinstitutionalized individuals with DD is often confounded by the variation in performance. That is, the variation in performance reflects, in part, the individuals’ abilities and characteristics. For instance, people with higher support needs, whether because of their DD, their challenging behaviours or social impairments, often experience worst outcomes than people who are more autonomous (Felce & Emerson, 2001; Mansell, 2006).

Moreover, Hatton, Emerson, Robertson, Henderson and Cooper (1996) used a path analytic approach to identify factors associated with service quality and the QOL of residents who have recently relocated to the community. They examined 40 adults with DD and revealed that direct predictors of a higher number of resident outings were more scheduled activity, less social distance between staff and residents, less block treatment of residents, and non-specialized service orientation. Their results also revealed that indirect predictors of a higher number of resident outings were higher resident cognitive skills and community location. Further evidence of the influence of personal characteristics is evident in a study by Dagnan, Howard and Drewett (1994) who found that the number of trips made after relocation from the institution was a characteristic of the individual in the sense that those people who often left their wards while in the institution, also subsequently left their community-based homes more frequently. Despite the recognition that personal characteristics influence outcomes of resettlement,
limited research has been conducted on which characteristics predict level of community involvement for recently deinstitutionalized individuals. There are four individual characteristics that have been demonstrated within the literature to be associated with greater community involvement: adaptive and challenging behaviours, level of functioning, health status and age; however this research is limited.

**Adaptive and Challenging Behaviours**

The scant literature on community involvement has demonstrated that engagement in activity is significantly and positively related to adaptive behaviours among cross-sections of people with DD (Felce et al., 1999; Felce & Perry, 1995), people with severe and multiple disabilities (Emerson et al., 2000), and people with DD and sensory impairments (Hatton et al., 1996). Adaptive behaviour is the most researched predictor of community involvement and has been found to be positively associated with the frequency of social and community activities (Felce, Lowe, Beecham, & Hallam, 2000; Felce, Lowe & Jones, 2002; Felce & Perry, 1995; Hatton et al., 1996; Stancliffe & Lakin, 1998). In addition, Felce et al. (2000) reported an inverse association between frequency of community activities and level of challenging behaviours, after controlling for adaptive behaviours. For instance, researchers examining 116 individuals enrolled in the Minnesota Longitudinal Study revealed that residents of larger (7-15 people) settings used fewer places in the community; adaptive behaviors was a significant covariate such that individuals with a milder disability enjoyed more positive outcomes (Stancliffe & Lakin, 1998). Similarly, Felce and Perry (1995) used a multivariate regression analysis to model the association between various measures of outcome and personal characteristics. They found that a higher range of activities, and higher social
engagement was predicted by higher adaptive behaviours, greater setting size, and greater
receipt of attention from staff. Likewise, Mansell, Beadle-Brown, Macdonald and
Ashman (2003) examined 343 adults with DD in the UK and found that the only factors
predictive of engagement in meaningful activities in community settings were adaptive
behaviours and care practices, among a range of services and staff variables. Unlike
Felce and colleagues (2000), the results did not indicate a negative association between
frequency of community activities and level of challenging behaviours.

As mentioned, level of challenging behaviours has been found to be inversely
associated with engagement in activity (Felce et al., 2000; Felce, Lowe & Jones, 2002).
However, levels of adaptive and challenging behaviours were confounded by a
significant negative correlation. Associations between adaptive behaviours and outcomes
are stronger than those between challenging behaviours and outcomes. For example,
challenging behaviours was not a significant predictor in a multivariate regression
analysis of outcomes when entered with adaptive behaviour. Consequently, there was no
significant association between resident activity levels and challenging behaviour
(Emerson et al., 2000; McConkey, 2007). Baker (2007) reported similar results, such that
there was an absence of relation between challenging behaviours and community
involvement, which the researcher reported with caveat that this finding may reflect the
strong correlation between challenging and adaptive behaviours. However, other studies
have suggested otherwise. Researchers revealed that levels of challenging behaviours
predicted levels of inactivity (Perry & Felce, 2005; Thompson Robinson, Dietrich, Farris,
& Sinclair, 1996). Thus, the research investigating the association between challenging
behaviour and community involvement remains unclear.
Level of Functioning

McConkey (2007) found that people with higher social competence were more likely to make use of community amenities, such that participants could travel independently, with fewer behavioural problems and lower incidence of epilepsy. However, the presence of epilepsy or behavioural problems in participants was not predictive of community involvement. Stancliffe and Lakin (1998) reported that higher resident ability was related to greater variety of community settings used, more social activities, better personal integration into the community, more contact with family members and greater choice. Baker (2007) found that not living in an institution, having relatively high levels of adaptive behaviors and having individually written community access goals predicted levels of community involvement for people with DD in the UK.

There is also evidence that level of functioning may predict a superior level of community involvement. Individuals with severe or profound intellectual functioning have been shown to have lower total scores on a measure that obtains information on various aspects of a person’s lifestyle, including community access. The results indicate that their objective QOL was not as high as that of the participants with mild or moderate intellectual functioning (Young, 2006). Similarly, Burchard, Hasazi, Gordon and Yoe (1991) demonstrated that the average number of weekly activities that took place in the community were significantly greater for people with primarily mild or borderline intellectual functioning in one to two person, unstaffed but supervised apartments than that of people with moderate to borderline intellectual functioning in three to six person staffed group homes. Howe, Horner and Newton (1998) compared one to three person supported living arrangements and two to twenty person traditional residential services
for adults with mild or moderate intellectual functioning in a matched group comparison and found that people in the former group undertook more community activities and a greater variety of community activities. Therefore, as Myers, Ager, Kerr and Myles (1998) reports, the more significant an individual’s disability the fewer opportunities he or she had to participate in community activities.

Health

Research on the health of individuals with DD has been limited, especially as it relates to community involvement. Research investigating 500 adults with DD from community settings and residential campuses revealed that levels of smoking and alcohol were low, however the prevalence of poor diet, obesity and physical inactivity were high (Robertson et al., 2000). Ouellette-Kuntz and colleagues (2005) suggest that not only do individuals with DD have more health concerns than those without DD, but the differences in the causes of health problems, functional limitations, communication difficulties and their barriers to services and community access may contribute to their vulnerability which inevitably affects their quality of life.

Generally, physical activity reduces the risk of premature death and the risk of developing the major chronic diseases (e.g. coronary heart disease, stroke, diabetes and cancers) (Robertson & Emerson, 2010). Finlayson et al. (2009) examined 433 people of whom only 150 undertook regular activities. They revealed that older age, immobility, epilepsy, no daytime opportunities, living in congregate care and fecal incontinence were predictive of low levels of activity.

Age
The reported inverse relationship between age and community involvement (Ager et al., 2001; Finlayson et al., 2009) suggests a greater usage of community, recreation and leisure activities with younger users. Although Ager et al. (2001) examined 76 recently deinstitutionalized adults between the ages 21 and 92, and found a statically significant increase in ICI scores. A closer examination of the data revealed that there was a decrement in ICI scores for 10 people and no change in scores for 8 people. However these eighteen individuals were around 60 years old, suggesting that older adults may experience a “plateau effect” when it comes to accessing community activities. In fact, individuals with DD age 50 years and over participated in activities less than those under 50 years (Dusseljess, Rijken, Cardol, Curfs & Groenwegen, 2011). Hence, older people with DD tend to be at risk for social exclusion.

Despite the relation between age and level of community involvement, Felce, Jones, Lowe and Perry (2003) found that higher levels of resident engagement in activity for a sample of 163 adults with DD with a mean age of 47 (range 20 to 90) years living in group homes was associated with higher adaptive behaviour and greater attention from staff. Age was not a significant predictor of resident engagement. Mansell, Beadle-Brown, Macdonald and Ashman (2003) found similar results in a sample of 343 adults with DD with a mean age of 40 (range 16 to 90) years. Vine and Hamilton (2005) reported similar results, with age predicting care practice but not community access. However, age has been shown to have a small association with a greater variety and frequency of ICI scores (Felce, Perry, & Kerr, 2011). The research on the influence of age on community involvement remains limited; hence age will be used as a predictor in the current study.
Preference

Although individual preference is recognized as an important aspect when examining community involvement, it has rarely been explored in the literature. For example, Forrester-Jones et al. (2002) examined the subjective views on QOL of 298 adults with DD and mental health issues. This study found that the most preferred activities were outings, education and work, and relaxation and leisure, while the most disliked activities were household chores and having nothing to do. Despite the minimal research investigating community involvement descriptively, together with Study 1, the current study will explore the influence of preference, as measured by the congruence between the activities people do and like the most, on community involvement.

Summary

The variability of outcomes in community-based care may threaten the harmony supporting deinstitutionalization and community living policies by removing the evidence that community services is better for everyone (Mansell, 2006). Hence, it is necessary to identify factors associated with positive outcomes in community living, more specifically, community involvement. Factors contributing to such variation in community involvement are potentially an imperative key to understanding policy and practice developments, which may support greater community involvement of service users. Although the focus of many studies has been on service characteristics influencing outcome (Emerson & Hatton, 1994), the predominant interest in the current study was the characteristics of previously deinstitutionalized adults themselves which may or may not predict improved community involvement. Additionally, this information about
individual factors that predict community involvement will be imperative to the
development of a comprehensive theoretical model.

Method

Participants

The participants in the present study were former residents from the last three
institutions in Ontario (Huronia Regional Centre, Rideau Regional Centre, and
Southwestern Regional Centre). Residents moved into community-based residences
across the province within the last five years. The Ontario Ministry of Community and
Social Service initially contacted prospective participants about the study. Once consent
to contact (see Appendix A) forms were received, letters of invitation were sent to
agencies to participate in the larger quasi-longitudinal study on the Facilities Initiative
(FI)\(^2\), examining the experiences of former residents of institutions across Ontario.
Consents, providing information about the aim of the study and procedures, were
received from substitute decision makers on behalf of the participants, and direct-care
staff (see Appendix B and C). The direct-care staff provided information on behalf of the
participant and reported knowing the participant best. Furthermore, staff had full
knowledge of their clients' access to community activities including the activities
accessed at day program.

Data was collected on the first 87 participants that were visited from the larger
quasi-longitudinal ongoing study. Given the limitation of the sample size, only the
impact of individual characteristics on community involvement will be investigated.

\(^2\) A team of researchers at Brock University under the principal investigators Dr. Rosemary Condillac &
Dr. Dorothy Griffiths have been commissioned to carry out a study examining the impact of
deinstitutionalization on individuals with DD in Ontario. The Facilities Initiative Study is a multi-method
study, and these data were collected as part of Quasi-Longitudinal portion of the Study.
The FI project coordinators contacts agencies and group residences via telephone calls after the consent to contact forms were received. During the phone call, more information about the study was provided, and a tentative date was scheduled for a research assistant (RA) to visit the participant’s home and collect data. Information packages and consent packages were then sent out. Consent from the participant’s substitute decision maker and direct-care staff were collected prior to the visit. However, participant assent was acquired during the RA’s visit to the participant’s home using a standardized script. Once consents were received, the RA visit to the home was completed. During the RA visit, if the participant with DID engages in any behaviours that signified discomfort with the process, then the RA would infer this as the participant wanting to withdraw from the study. However, this did not occur in this study. Additionally, the opportunity for subsequent withdrawal at any stage of the study was ensured and that all provided information would remain autonomous and confidential kept in a secured storage facility at Brock University.

Measures

Descriptives. The Current Management Strategies Interview (CMSI; Feldman, Atkinson, Foti-Gervais, & Condillac, 2004) is an open-ended interview designed to gather information on types of challenging behaviour and current treatments. The CMSI is divided into two sections, however for the purpose of this study, only section I will be utilized. Information about the direct-care staff’s relationship to the client, position, education and experience, as well as the participant’s living environment will be used for descriptive purposes only.
Adaptive behaviour. The Scales of Independent Behaviour-Revised (SIB-R; Bruininks, Woodcock, Weatherman & Hill, 1996) is a 259-item broad measure of adaptive behaviour. The SIB-R was created to measure functional independence and adaptive functions in a variety of environments including home, educational, work and community. The SIB-R has been normed for use with individuals from early infancy to late adulthood and can be used to assess individuals with or without DD. The norms of the SIB-R provide the reference information to which an individual’s performance is compared and evaluated. Normative data for the SIB-R were gathered from 2,182 individuals from age 3 to 90 years in 15 states and more than 60 communities distributed throughout the US (Bruininks, Woodcock, Weatherman, & Hill, 1996).

The SIB-R contains 14 subscales distributed into four adaptive behaviour clusters: social interaction and communication skills (i.e., social interaction, language comprehension, language expression), personal living skills (i.e., eating and meal preparation, toileting, dressing, personal self-care, and domestic skills), community living skills (i.e., time and punctuality, money and value, work skills and home/community orientation) and motor skills (i.e., gross and fine motor skills).

These clusters form the primary interpretive level for the SIB-R; and each sub-scale has between 16 and 20 items ordered in ascending level of developmental difficulty and rated on a 4-point Likert scale ranging from Never or rarely – even if asked (0) to Does very well – always or almost always – without being asked (3). The sum of item scores becomes the raw score for each subscale. The Broad independence score is a measure of overall adaptive behaviours or functional independence and is based on the average of the four different areas of adaptive behaviours.
The Problem Behaviour Scale provides a general summary of eight problem behaviour areas organized into three broad maladaptive behaviour indexes. The indexes include: Internalized Maladaptive Behaviour (e.g., hurtful to self, unusual or repetitive habits, and withdrawn or inattentive behaviour), Asocial Maladaptive Behaviour (e.g., socially offensive behaviour and uncooperative behaviour), and Externalized Maladaptive Behaviour (e.g., hurtful to others, destructive to property, and disruptive behaviour). The General Maladaptive Behaviour is a composite of the three indices. Individual problem behaviours are scored as either present or absent. If a problem behaviour is present, then frequency and severity scores are obtained. The index scores for each subscale and the total score provide ratings of the seriousness of the problem behaviour as normal, marginally serious, moderately serious, serious or very serious.

As denoted in the SIB-R manual (Bruininks, Woodcock, Weatherman, & Hill, 1996), results from an individual’s adaptive behaviour and problem behaviour assessments are combined to produce a Support Score. The Support Score helps researchers determine the overall intensity of resources, needed support, and improving and/or maintaining an individual’s functional independence across settings. There are six broad levels of needed support across the range of this scale. Higher scores reflect increased functional independence and decreased needs for support, help, supervision or special training. Lower scores indicate a need for higher intensity of support due to limited adaptive behaviour, excess problem behaviour or a combination of these two areas. These broad levels of support include: infrequent or no support (i.e., least support), intermittent, limited, frequent, extensive and pervasive (i.e., most support). For the
purpose of this study, the standard support score will be utilized as a measure of level of functioning.

The SIB-R manual denotes numerous studies that have demonstrated its psychometric characteristics (Bruininks, Woodcock, Weatherman, & Hill, 1996). The authors found that median split-half reliabilities for the adaptive behaviour subscale ranged from 0.74 to 0.98 in a sample of 365 individuals ages 20 to 90 years. Additionally, all reliabilities exceeded .90 and the coefficients were mostly in the high .90s. Median reliability coefficients for cluster and total scored across samples and age levels of populations with disabilities were in the middle to high .90s; and test-retest reliability coefficients ranged from 0.96 to 0.97 (Bruininks et al., 1996). Reliability and validity are also excellent for the maladaptive behaviour scales. The reliability coefficients for the four Maladaptive Behaviour Indexes ranged from .57 to .87, whereas the Support Score correlation between raters was .91 in a sample of 30 children aged 6 to 13 years (Bruininks et al., 1996).

The manual revealed extremely high correlations (i.e., high .90s) between the SIB and the SIB-R for a sample of 1,764 individuals of all ages. This suggests that the earlier validity studies on the original SIB are generalizable in evaluating the validity of the SIB-R. Furthermore, there is a high correlation (.96) between the Inventory on Client and Agency Planning (ICAP; Bruininks et al., 1986) and the SIB-R across several age samples (Bruininks et al., 1996).

The SIB-R has two forms of administration: an interview-administration procedure and a checklist procedure. However, for the purpose of this study, the easy to complete and reliable checklist administration procedure will be used.
Challenging behaviour. The Behaviour Problems Inventory (BPI; Rojahn, 1984) will also be utilized. The BPI is a 52-item rating instrument for measuring self-injurious, stereotypic and aggressive behaviour in persons with DD; and is a quality measure for evaluating problem behaviours in individuals with DD. Currently the checklist consists of 14 different self-injurious behaviours, 24 stereotypic behaviours and 14 aggressive and destructive behaviours. Each item will be scored on two scales, a five-point frequency scale ranging from *Never* (0) to *Hourly* (4) and a four-point severity scale ranging from *No problem* (0) to a *Severe problem* (3). If a behaviour does not meet the criteria, "*never/no problem*" will be checked. For the purpose of this study, the frequency and severity scores of the self-injurious and aggressive/destructive scales will be added to yield an overall problem behaviour score, with greater scores indicating more problem behaviours. The prevalence of challenging behaviours will also be reported.

Reliability and validity for the BPI has been established for adults with intellectual disabilities in the literature. Confirmatory factor analysis and item-total correlations supported the three *a priori* factors (Rojahn, Matson, Lott, Esbensen & Smalls, 2001). Rojahn et al. (2001) revealed test re-test reliability for the full-scale score of .76, internal consistency with an α of .83. The subscales had alphas of .61 (SIB), .79 (Stereotyped Behavior), and .82 (Aggression/Destruction), respectively. Additionally, the BPI has a between-interviewer agreement of .92.

Moreover factor and criterion validity have also been established (Rojahn et al., 2001). Validity results indicate that the aggressive/destructive subscale had an r-value of 0.55, while the self-injurious and stereotypic subscales scored r = 0.21 and r = 0.32, respectively (Gonzalez et al., 2009; Rojahn et al., 2001).
Health. The interRAI Intellectual Disability (interRAI ID; Hirdes et. al., 2007) is a 391-item instrument that assesses all key domains of interest to service providers relative to a person living with DD. Currently, there are 20 domains in which only a few items are required to recognize a prospective concern in each area. These domains include: personal information, health service history, cognition, communication, hearing and vision, physical functioning, self care, physical health medications, skin conditions, oral and nutritional status, psychiatric diagnoses, mental state indicators, life events, behaviour, psychosocial well being and social supports, education, vocation, recreation, prevention, intervention and home environment. For the purpose of this study, the exact count of the number of medical conditions that the participant was currently receiving active treatment was utilized to measure health.

The interRAI ID measure was also utilized for planning the reform while these individuals resided in the institutions. Martin, Hirdes, Fries and Smith (2007) tested the measure on a sample of 160 community-based residents. Both the inter-rater reliability of items and internal consistency of embedded scales are reported to be in the good to excellent range of Cronbach’s alpha between 0.74 and 0.93. Moreover, all scales have good relationships with other criterion measures like the Reiss Screen (Reiss, 1988), and the Dementia Questionnaire for Persons with Mental Retardation (Evenhuis, 1995) with a range from 0.50 to 0.93, p < 0.0001 (Martin, Hirdes, Fries & Smith, 2007).

Community involvement. The Community, Recreation and Leisure Interview (Condillac & White, 2010) is an unpublished measure that was designed specifically for the purpose of the larger quasi-longitudinal study (see Appendix D). This interview surveys an individual’s level of community involvement, which entails the amount and
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variety of contact that the individual has with community services and events outside their home environment, across ten broad categories of activities. These categories include attractions (i.e., art shows, fairs, concerts etc.), practical opportunities (i.e., grocery shopping, pharmacy, banking etc.), dinning/entertainment (i.e., movies, pubs, cafe etc.), visiting others (i.e., going to a friend’s house, immediate family’s home etc.), place of worship (i.e., church, temple, mosque etc.), passive leisure outside the home (i.e., car rides, going to the mall etc.), outdoor activities (i.e., hiking, beach, camping etc.), sports/recreation (i.e., swimming, bowling, basketball etc.), leisure at home (i.e., TV, movies, computer etc.) and hobbies (i.e., crafts, collecting, knitting etc.). Informants are then asked to determine the degree to which activities are preferred; the frequency of the aforementioned activities; whether or not the individuals enjoys them; the amount of access they have; and the factors what helps/hinders access of activities. For the purpose of this study, only the eight first categories (i.e., excluding leisure at home and hobbies) will be used as a measure of community, recreational and leisure activities outside the home.

First, the respondent is asked which activities the participant engages in, which is embedded in a checklist format. From the activities chosen, the respondent chooses the activity the individual does the most and likes the most. The summation of these activities people do the most across eight categories will be used as the outcome variable in the first regression. There are four questions that follow each (i.e., likes versus does the most): 1) “Does the person enjoy these activities” which is on a 5-point likert-scale (e.g., 0 = “Resists”, 2 = “Tolerates”, 4 = “Actively Enjoys”); 2) “How often does the person participate in these activities” and is rated on a 5-point likert scale from 0 (Never)
to 4 (Daily); 3) “Does the person have as much access to these as they would like” which is on a 5-point likert-scale (e.g., 1 = “Too Little”, 3 = “Just Right” and 5 = “Too Much”); and 4) “What helps or hinders access to these activities”. The last question is answered based on following: Cost, Availability, Convenience, Transportation, Person’s Behaviour, Person’s Mobility, Person’s Health, Other’s Behaviour, Other’s Mobility, Other’s Health, Staff Ratio and Staff Preference; and whether these factors helps (+), hinders (-) or Strike through (no effect) on the individual’s access to these community activities. However, for the purpose of this study, only question two on the frequency of activities people do the most will be utilized in the second regression.

Based on aforementioned literature on measuring community involvement, the CRLI seems to have good face validity. The CRLI doesn’t only measure the range and frequency of community, recreation and leisure activities, similar to the history of measures of community involvement; but also measures a person’s preference (i.e., likes/does the most) and the factors that help and hinder access to these community activities.

**Research Assistant Training**

The RAs for the current study were graduate students in the Applied Disabilities Studies and/or professionals in the field of DD. The RAs completed a three-day training during which an explanation of all the measures for the present study and the opportunity to practice was provided.

**Procedure**

The following procedures were administered.
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1. Once consent-to-contact forms were received, prospective participants and their
direct care staff were contacted. After thoroughly explaining the study, consent
was obtained per the recruitment and consent procedure described above.

2. Once consents were returned and signed, participants were mailed two screening
measures (i.e., SIB-R and BPI) with detailed instructions, for direct-care staff to
independently fill out before a research assistant visited the participant’s home.

3. Appointments were scheduled and staffed.

4. At the visit, the research assistant ensured that all consents were signed and that
pre-visit measures were completed. The research assistant used a standardized
script to obtain assent from the participant with DD who was participating in the
study if a substitute decision maker had provided consent.

5. The visit took place and all measures were completed by trained research
assistants who administered the assessment forms and interviewed the direct-care
staff members. Additional measures that are part of the larger study were also
completed at that time. Assessment and interviews were conducted in a five-hour
visit to the participants’ residence.

Residents were present at all interviews, and their participation were encouraged by
interviewers and supported by direct care staff; however, their participation will vary
inevitably according to their ability.

Research Design

A cross-sectional design was employed, such that the participants were assessed
on the basis of their level of community involvement at the same time point. The analytic
plan was to use two hierarchical multiple regression to determine the factors that
influence number of and the frequency of community, recreation and leisure activities that participants *do the most*. Participant responses were averaged across the eight broad categories of the CRLI.

The CRLI asks about the number and frequency of activities that people do the most. The responses to both of these questions were used independently in two multiple regression as the dependent variable. The predictors included: (a) age, (b) level of functioning, (c) challenging behaviour (d) health status and (e) preference.

**Power analysis**

A post-hoc power analysis for a multiple regression was employed using the number of predictors (5), an $\alpha$ of 0.05 and a moderate effect size (0.5) in order to determine the number of participants required to establish an acceptable level of power (0.8) (Cohen, 1988). Based on a priori power analysis, the results indicated that 32 participants should be included in the study. Data for a sample of 87 individuals with DD was gathered. This sample size should yield a power of 0.99 for detecting a moderate sized effect when employing the traditional 0.05 criterion of statistical significance.

**Results**

**Description of Sample**

Eight-seven participants and their direct-care staff participated in the present study. Informants reported knowing participants for a mean of 2.59 ($SD = 1.81$) years and having worked in the field of DD for over a decade ($M = 15.02, SD = 7.96$).

Thirty-eight females and forty-nine males between the ages 33 and 77 participated in the study. Specifically, there was one participant (1.1%) aged 30-39; twenty participants (23%) aged 40-49; forty-six participants (52.9%) aged 50-59; thirteen
participants (14.9%) aged 60-69 and seven participants (8%) aged 70-79. Participants resided in institutions across Ontario for an average of 42.15 (SD = 10.22) years. In fact, 35.3% of the present sample resided at Rideau Regional Centre, 30.6% at Huronia Regional Centre and 34.1% at Southwest Regional Centre giving a representative sample of the last three institutions. At the time of the visit, participants have been living in urban and rural community-based residences in Ontario for approximately five years ($M = 2.84, SD = .97$) with an average of 3.92 other clients ($SD = 2.64$).

Two participants required the least amount of support (intermittent) as denoted by the Scales of Independent Behaviour-Revised (SIB-R); hence presenting with borderline adaptive behaviour deficits. Six participants had mild deficits, scoring in the limited support category. There were twenty-four participants with moderate deficits requiring frequent support, and thirty needing extensive support and having severe deficits. Twenty-two participants scored the highest support level score, pervasive, indicating profound deficits. The SIB-R’s for three participants were never returned.

Furthermore, the vast majority of the sample presented with challenging behaviours, as measured by the BPI (BPI; Rojahn, 1984). Fifty-four (65.1%) participants were reported displaying varying levels of self-injurious behaviour; whereas seventy-one (86.6%) participants were described as demonstrating various levels of stereotypic behaviours; and forty-six (55.4%) participants were reported exhibiting variable levels of aggressive/destructive behaviours.

**Predicting the Number and Frequency of Activities**

Using the CRLI, the dependent variables were the number of different activities people *do the most* and the frequency of activities people *do the most* for the first and
second regression analysis, respectively. The number of activities people do the most was calculated using the summation of the different activities accessed (i.e., checklist on CRLI) across eight categories. The frequency of activities people do the most was calculated using the summation of the frequency (i.e., How often does the person participate in these activities) across eight categories. The independent variables were age, adaptive functioning level, health, and challenging behaviours. Age was measured as the participants’ age in years on the date of their visit with the RA. The standard support score on the SIB-R measured adaptive functioning level. Using the interRAI ID, health was measured by the number of diagnosed medical conditions that were currently receiving active treatment. Challenging behaviours were measured by summing the frequency and severity scores of the BPI for the self-injurious and aggressive/destructive behaviour scales.

**Distribution and normality analysis.** See Table 24 for descriptives on each variable. The distribution for each variable was normal, with the exception of a positive skew for both the health and challenging behaviour variables. The skewness was above one for both variables; for this reason, two transformations were performed. A square root transformation was conducted for both variables to correct for skewness, which is ideal according to Tabachnick and Fidell (2001). The skewness for the square root of health ($M = 1.18, SD = .71$) decreased from 2.26 to .09 (see Figures 1 and 2), while the skewness of the square root of challenging behaviour ($M = 3.08, SD = 2.06$) decreased from 1.27 to .08 (see Figures 3 and 4). Two cases were identified as potential univariate outliers on the square root of health (see Figure 5). However, standard z-scores for the square root of health did not exceed ±3.29 ($p < .001$, two tails), which suggest the
unlikelihood for univariate outliers (Tabachnick & Fidell, 2001). Thus, the outliers were not excluded from analyses.

**Examination of regression assumptions.** Due to the lack of direct-care staff returning measures via mail, specifically the BPI and SIB-R, a few participants were missing data. In order to have a complete data set to run the two regression analyses, a missing value analysis, specifically an expectation maximization procedure (EM) was employed. If cases with missing values are systematically different from the cases without missing values, the results may be misleading. Additionally, missing data may reduce the precision of the calculated statistics because there is less information than initially planned (Tabachnik & Fidell, 2001). The EM procedure randomly draws numbers to match the distribution of the variable, which allows for better generalization to the population. This procedure is superior to the mean imputation because replacing missing values with the mean harms generalizability and hurts power.

In order to determine if the multivariate assumptions (i.e., normality, linearity and homoscedasticity) had been violated, a dummy dependent variable (DV), consisting of random numbers, was run against the independent variables (IV). As shown in Figure 6, the P-P plot of regression standardized residuals indicated that the assumption of linearity was met. (Tabachnick & Fidell, 2001). Additionally, the residuals were normally distributed, such that the assumption of normality was met (see Figure 7). A Durbin-Watson value of 2.03 indicates that the residuals did not have serial correlation with one another (Norusis, 2008; Field, 2009; Tabachnick & Fidell, 2001). The Pearson-product moment correlation revealed a small negative effect between age and the square root of challenging behaviour ($r = -.27, p = .01$); however, there were no relationships between
any of the other variables (see Table 25). Furthermore, collinearity statistics indicated a tolerance that was < 1, suggesting that multicollinearity was not evident.

Mahalanobis distance was utilized to search for multivariate outliers and can be evaluated using the $X^2$ distribution. Tabachnick and Fidell (2001) suggests that a conservative probability estimate for identifying outliers is $p < .001$ for the $X^2$ value. Thus, using Mahalanobis distance, no multivariate outliers were present.

**Hierarchical Multiple Regressions.** Two hierarchical multiple regressions were employed based on existing literature for the number and the frequency of community, recreation and leisure activities. For both regressions, the first block included age and level of functioning. The square root of health and the square root of challenging behaviour were entered in the second block. Preference was entered in the third block in order to examine the influence it has on community, recreation and leisure activities over and above that which is accounted for by the other predictors.

**Number of community, recreation and leisure activities.** The first hierarchical multiple regression indicated that level of functioning significantly predicted the number of community, recreation and leisure activities, $\beta = .258, t (84) = 2.46, p = .02$, explaining only 8.4% of the variance in the model. The overall model was not significant $F (5, 81) = 1.97, p = .09$ (see Table 26).

Additionally, upon inspection of the part and partial correlations, there was no suggestion of any moderator effects; hence, further investigation was not required.

**Frequency of community, recreation and leisure activities.** The hierarchical multiple regression indicated that, similar to the first regression, level of functioning significantly predicted the frequency of community, recreation and leisure activities, $\beta =$
.378, \( t(84) = 3.726, p = .000 \), explaining 14.2% of the variance in the model (see Table 27). Interestingly, preference was a significant predictor of the frequency of activities \( \beta = .230, \( t(81) = 2.269, p = .026 \). Together, level of functioning and preference explained 20.1% of the variance.

Additionally, upon inspection of the part and partial correlations for both regressions, there was no suggestion of any moderator effects; hence, further investigation was not required.

**Discussion**

In this study, the predictors of community involvement were age, level of functioning, health, challenging behaviour and preference. Two hierarchical multiple regressions were employed based on existing literature for the number and the frequency of community, recreation and leisure activities. For the first regression, age, square root of health and challenging behaviour and preference did not predict the number of community, recreation and leisure activities that people *do the most*, while level of functioning only accounted for 8.4 percent of the variance in the model. Whereas for the second regression, level of functioning and preference accounted for twenty percent of the variance in a model predicting the frequency of community, recreation and leisure activities people engage in most often.

It was expected that age, health and challenging behaviours would influence community, recreation and leisure activities as had been evident in the aforementioned literature (Ager et al., 2001; Emerson & Hatton, 1994; Felce et al., 2000; Thompson et al., 1996; Vine & Hamilton, 2003). However, consistent with the results of the current study, Mansell et al., (2003) also found that age was not a significant predictor of
engagement in community activities. Given that the mean age was 55.21 years (range 33.43 to 77.10) for the current study, it is reasonable that these adults have experienced a "plateau effect" when accessing community activities. Other research has found that individuals with DD who were 50 years and over participated in activities less than those under 50 years (Dusseljess, Rijken, Cardol, Curfs & Groenwegen, 2011). Additionally, it is plausible that our findings were not significant given that a restricted range would like effect the correlation coefficient and the regression line.

Similar to previous research (Baker, 2007), challenging behaviours was not a predictor of community activities, which was somewhat surprising. Hence, unlike Felce et al. (2000) we did not find a negative association between frequency and number of activities and level of challenging behaviour. However there was a negative association between age and challenging behaviours ($r = -.27$), which suggests fewer behaviour problems in older adults. Additionally, it is plausible that we did not observe a significant effect because of the success of behavioural interventions to reduce challenging behaviours in this population.

It should not be assumed that people with DD do not participate in community activities because of their higher support needs or because they prefer not to (Robertson & Emerson, 2010). Not surprisingly, level of functioning was a significant predictor in both regressions given the numerous studies supporting its influence on community activities (Baker, 2007; Emerson et al., 2000; Felce & Perry, 1995; Felce et al, 1999; Felce et al., 2000; Felce et al., 2003; Mansell et al., 2003; McConkey, 2007; Myers et al., 1998; Perry et al., 2000; Stancliffe & Lakin, 1998; Vine & Hamilton, 2005) as well as the
positive correlation found in the current study between level of function and both dependent variables.

That is, the higher a person’s ability level, the more access they have to community activities (Thorn, Pittman, Myers, & Slaughter, 2009). Most notably, given the limited research on people’s preference for engaging in community activities, reported preference was a significant predictor contributing to the frequency and not the number of activities. This is noteworthy given the scant research on people’s preference for community, recreation and leisure activities. Additionally, considering the moderate positive association between both dependent variables, it was surprising that preference was a predictor for the frequency of activities only. This may be due to the way preference was measured and inferred in the current study. However, the intrinsic motivation associated with preference may be a vital component to the development of the frequency of which one engages in community activities. Additionally, these findings may reflect limited interests for a variety of activities or limited access to potentially enjoyable activities.

Despite the relatively large sample, it cannot be assumed to be representative of all adults with DD receiving support in Ontario. This may be because the current study’s participants were former residents of institutions and have been living in community-based residences from 6 months to 6 years. Moreover, a cross sectional regression analysis is a correlational method and therefore it is more accurate to regard relations as associations rather than causal paths. Hence, the results suggest that adults with relatively lower levels of functioning may be at risk of having limited community involvement.
Additionally, individuals with greater preference for activities are more likely to participate in community, recreational and leisure activities at a higher level. Individual planning and goals have been shown to predict more frequent social and community activities (Baker, 2007; Perry & Felce, 2005). Skills training programs have been found to focus on deficits rather than goals and preferences (Thorn et al., 2009). Based on the findings of this study, care providers should increase the focus on individual preference, in addition to skills training programs, greater individual planning and more individualized support practices.

In conclusion, in our sample of people with DD who had recently moved out of institutions, those who had higher levels of functioning were likely to engage in a greater number of community, recreation and leisure activities than their counterparts. Also, within our sample, people with DD who had higher levels of functioning and took part in more preferable activities engaged more frequently in community activities. In fact, Clement and Bigby (2009) suggested that level of functioning and preference together should be major criteria for judging the success of community involvement because examining preference alone marginalizes the impact of the DD.

**General Discussion**

Although there is a substantial body of literature on the outcomes of deinstitutionalization for adults with DD, there is limited research examining the levels of participation in their community. In fact, there are even fewer researchers accounting for people's preference for activities (Clement & Bigby, 2009; Forrester-Jones et al., 2002). The purpose of the current study was to evaluate the community, recreation and leisure
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activities of adults with DD who have recently located from institutions in Ontario, Canada. The following research questions were examined:

1. What is the current level of community involvement in adults with DD, and which factors facilitate or hinder access? Together with to what degree is there congruence between the activities people do the most and the ones that they like the most?

2. What factors influence the number and frequency of community, recreation and leisure activities people do the most?

This study has addressed the aforementioned research questions, adding to the cumulative evidence that community, recreation and leisure activities remain an important interest for people living with DD. Study 1 provided a descriptive insight into the participation in community activities of adults with DD who have recently relocated into community-based residences as well as the facilitating and hindering factors associated. Additionally, Study 2 investigated the influence of participant factors on the number and frequency of community, recreation and leisure activities.

Review of Findings

Study 1. This study provided a descriptive insight into the community, recreation and leisure activities of adult with DD who have relocated from institutions and into community-based homes. Higher rates of activities were reported for practical opportunities, dining and entertainment, outdoors activities and attractions. Generally, the activities people do the most were found to be the ones they like the most, with their reported access to be "just right". Although staff reported that participants would like more access to activities like dining and entertainment, visiting others, passive leisure and
outdoor activities. Despite only passive leisure activities being accessed on a weekly to daily basis, other activities were only accessed from weekly to yearly.

Considering that the most frequent activities people do the most are the activities people like the most, only one person received a perfect preference score on all eight categories. That is, most people received a perfect score on approximately half of the categories with the highest congruence for outdoor activities, passive leisure outside the home, dining and entertainment, and practical opportunities.

**Study 2.** The regression of independent variables on the number of community, recreation and leisure activities people do the most revealed that only level of functioning appeared to be an important predictor. However two variables appeared to be important predictors of the frequency of activities people do the most: the overall level of functioning and the preference of activities of the participants.

**Implications**

The facilitating and hindering factors, together with the person’s level of functioning and preference, contributing to the development of community involvement may potentially be an imperative key to understanding policy and practice development. It is important to understand the factors and developments that influence community involvement because this knowledge may be used to encourage participation and remove barriers in community activities. The factors that facilitate and hinder the community involvement of adults with disabilities have not been extensively studied. Thus without knowledge, based on research, about the factors that are important in this complex picture of community involvement, it is difficult to plan interventions and to design effective policies and support programs (King et al., 2003).
With the vast majority of studies on community involvement focusing on the influence of service or residential characteristics, and few studies on the individual characteristics aside from the facilitating factors and barriers, it becomes difficult knowing where to assist adults with DD access their preferable activities. In fact, King et al. (2003) developed a model on children with DD’s recreation and leisure participation. Despite the lack of a current theoretical model for adults with DD, their model may similarly apply and can be used to guide research focusing on individuals with DD.

This model can be similarly applied to the current study’s participants by focusing on both proximal (individual) and distal (environment) factors that affect community involvement. Level of functioning and preference were significant factors in study 2 that may contribute to the development of a conceptual model for adults with DD at the individual level. Factors in study 1 may similarly apply to the model at the environmental level: transportation, cost, availability, and staff ratio were shown to facilitate and hinder people’s access of community activities. King et al.’s (2003) comprehensive model incorporates the notions of preferences, functioning, competencies and the mechanisms of support and opportunity, which are several themes that have been established in the current study.

King et al. (2003) state that “the model will also enable researchers to understand the dynamic interplay between the various factors that might constrain or enhance participation and the causal pathways by which the frequency and nature of participation is determined” (p. 81). Thus, it is important for community agencies to consider the influencing factors when planning community involvement initiatives and services.
designed to promote community, recreation and leisure participation because specifying any possible causal pathways between each factor and community involvement will provide a better understanding of the various mechanism that enhance or restrict participation levels.

Limitations

Despite the strengths of the study, the limitations should be highlighted. First, data was collected via proxy respondents. The direct-care staff who served as proxies for the participants reported knowing the participants well. Unfortunately informant measures were a necessary mode as the majority of participants functioned in the severe to profound range of intellectual functioning, and lacked the communication skills required to provide accurate information. It is plausible that if participants have been able to describe their own community activities, they might have described it differently. This may have especially been the case with the CRLI and measuring the activities people do versus like the most. Behavioural research has revealed that individuals with profound DD can reliably disclose their preference through observations of approach and avoidance behaviour in response to systematically presented stimuli (Reid, Everson, & Green, 1999). This may have been a useful and more accurate approach; however it is difficult to use subjective evaluations for some people with DD and to collect reliable subjective evaluations. For this reason, the use of proxy respondents has been shown to have both acceptable (Schalock & Keith, 1993; Stancliffe, 1999) and questionable reliability (Perry & Felce, 2002). They are not a replacement for direct subjective information, but it had been deemed appropriate to have proxy respondents rather than no respondents (Stancliffe, 1999). For example, Cummins and Lau (2003) stated that proxy
respondents are appropriate given that in their pilot studies, participants relied on staff to help them to recall the activities they had carried out in the past month.

Second, staff could have given social desirable answers during the interview, which can result in a social desirability response bias. This may be less of a problem when examining actual participation in community activities and not subjective experience, such as satisfaction with participation or preference.

Third, interpreting the results of this study remains difficult given that the CRLI did not account for the exact number of times each activity was accessed, nor did it account for the duration or with whom the activity occurred. Additionally, an option to report that there are no opportunities for these individuals should have been included. This information would provide a better understanding of the complex picture of community, recreation and leisure activities of adults with DD. The CRLI is a retrospective measure, which may over- or under-estimate the level of community involvement of the current sample of individuals with DD. Furthermore, given the lack of psychometric properties (i.e., reliability and validity), it would have been useful to attempt to validate the measure through direct observation, which may have not been cost-effective; or with another well-established and published measure of community involvement. However, the CRLI is the first measure to account for facilitating and hindering factors in addition to the participant’s preference, which provides more insight.

Fourth, other factors that were not explored, such as the amount of time in and out of the institution and the number of other residents living in the home with the participants, may be influencing the dependent variables. For example, participants had been living in the community for at least a year, while some of them had been living there
for approximately six years when the RA visit took place. Research has shown that participation of people with DD in community and social life increases when they have lived in the community for a longer period of time (Verdonschot, de Witte, Reichrath, Buntinx, & Curfs, 2009). Furthermore, the range of people with DD living with the participants was from none to fifteen other people, which would likely affect the amount of support given, together with the level of functioning. For example, McConkey (2007) found that people with higher levels of functioning tended to live in supported living schemes with a maximum of 15 other people with DD and displayed greater levels of community involvement than individuals living in small group homes of approximately six other people with DD. Additionally, the vast majority of participants ranged from 50 to 80 years old; and generally, research has shown that individuals age 50 years and over with DD participate in activities less than those under 50 years (Dusseljess, Rijken, Cardol, Curfs, & Groenwegen, 2011). Hence, it is likely another factor, which was not investigated in the current study, may influence community involvement.

Future Research

Future research should attempt to identify the possible factors that facilitate and hinder community participation of adults with DD in addition to defining a theoretical or conceptual model for identifying factors (including environmental and individual characteristics) that influence community, recreation and leisure activities. This should be an important step before influencing policy, because of the difficulties of providing an adequate and well-equipped staff to support community involvement among people with DD, which is complex and multifaceted. It is apparent that if we are to encourage an inclusive society for people living with DD, further research is required to better
comprehend and more successfully support people's ambitions for and experience of community activities (Emerson & McVilly, 2004)

Conclusions

Despite the aforementioned limitations, it is clear that a substantial number of people with DD are excluded from experiencing physical, social and psychological benefits associated with participating in activities. However, it is difficult to determine the extent to which the current sample is restricted given the lack of comparison groups or pre- and post-relocation measures. It is exciting to note that people with DD are present in the community and are reported to be enjoying their activities despite their access being inadequate. Notably, the process of deinstitutionalization is far from over. As large segregated institutions disappear, policy problems will include sustaining good outcomes for everyone in the community, which will require an understanding of the contribution of different factors (Kozma, 2009). The current study revealed various factors that facilitate and hinder access; in addition the significant factors that predict the frequency of community activities: participant's level of functioning and preference. For policy makers, this study should caution against expecting improvement in community involvement when only the resources have changed.
References


DEINSTITUTIONALIZATION & COMMUNITY ACTIVITIES


associated with staff support and resident lifestyle in services for people with multiple disabilities: A path analytic approach. *Journal of Intellectual Disability Research, 40*, 466-477.


deinstitutionalization on activities and skills of severely/profoundly mentally
retarded multiply handicapped adult. *Applied Research in Mental Retardation, 6*,
361-371.

towards individuals with intellectual disabilities as measured by the concept of
social distance. *Journal of Applied Research in Intellectual Disabilities, 23*, 132-
142.

Addressing health disparities through promoting equity for individuals with

Patterson, I. & Pegg, S. (2009). Serious leisure and people with intellectual disabilities:

http://www.peoplefirstofcanada.ca/deinstitutionalization_en.php

Responsiveness, response bias, and resident:proxy concordance. *Mental
Retardation, 40*, 445-456.


with severe challenging behaviour moving from institutional to community living.


### Table 1

**The Mean Number of Activities Accessed in Each Category (n = 87)**

<table>
<thead>
<tr>
<th>Category</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>Skew</th>
<th>SE Skew</th>
</tr>
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<tbody>
<tr>
<td>Attractions</td>
<td>3.41</td>
<td>2.21</td>
<td>0</td>
<td>9</td>
<td>.38</td>
<td>.26</td>
</tr>
<tr>
<td>Practical Opportunities</td>
<td>4.46</td>
<td>1.96</td>
<td>0</td>
<td>8</td>
<td>-.42</td>
<td>.26</td>
</tr>
<tr>
<td>Dinning/Entertainment</td>
<td>4.18</td>
<td>1.76</td>
<td>0</td>
<td>9</td>
<td>-.21</td>
<td>.26</td>
</tr>
<tr>
<td>Visiting Others</td>
<td>1.39</td>
<td>.96</td>
<td>0</td>
<td>3</td>
<td>.20</td>
<td>.26</td>
</tr>
<tr>
<td>Place of Worship</td>
<td>.69</td>
<td>.85</td>
<td>0</td>
<td>3</td>
<td>.99</td>
<td>.26</td>
</tr>
<tr>
<td>Passive Leisure</td>
<td>2.11</td>
<td>.95</td>
<td>0</td>
<td>6</td>
<td>.87</td>
<td>.26</td>
</tr>
<tr>
<td><strong>Outside the Home</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outdoor Activities</td>
<td>3.51</td>
<td>1.28</td>
<td>0</td>
<td>7</td>
<td>.211</td>
<td>.26</td>
</tr>
<tr>
<td>Sports/Recreation</td>
<td>1.66</td>
<td>1.41</td>
<td>0</td>
<td>7</td>
<td>1.21</td>
<td>.26</td>
</tr>
</tbody>
</table>
### Table 2

*Frequency of Attractions (n = 87)*

<table>
<thead>
<tr>
<th>Attractions</th>
<th>Number of Attractions</th>
<th>Do the most</th>
<th>Like the most</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (%)</td>
<td>Frequency (%)</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Fairs</td>
<td>62 (71.3)</td>
<td>20 (23.0)</td>
<td>18 (20.7)</td>
</tr>
<tr>
<td>Sporting Events</td>
<td>42 (48.3)</td>
<td>18 (20.7)</td>
<td>12 (13.8)</td>
</tr>
<tr>
<td>Amusement Parks</td>
<td>40 (46.0)</td>
<td>6 (6.9)</td>
<td>9 (10.3)</td>
</tr>
<tr>
<td>Concerts</td>
<td>40 (46.0)</td>
<td>15 (17.2)</td>
<td>18 (20.7)</td>
</tr>
<tr>
<td>Museums</td>
<td>25 (28.7)</td>
<td>3 (3.4)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Exhibitions</td>
<td>22 (25.3)</td>
<td>4 (4.6)</td>
<td>3 (3.4)</td>
</tr>
<tr>
<td>Historical Sites</td>
<td>20 (23.0)</td>
<td>1 (1.1)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Art Shows</td>
<td>13 (14.9)</td>
<td>1 (1.1)</td>
<td>4 (4.6)</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parades/Festivals</td>
<td>9 (10.3)</td>
<td>4 (4.6)</td>
<td>3 (3.4)</td>
</tr>
<tr>
<td>Zoo</td>
<td>9 (10.3)</td>
<td>3 (3.4)</td>
<td>4 (4.6)</td>
</tr>
<tr>
<td>Vacations</td>
<td>15 (17.2)</td>
<td>2 (2.3)</td>
<td>4 (4.6)</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>-</td>
<td>10 (11.5)</td>
<td>10 (11.5)</td>
</tr>
</tbody>
</table>
### Table 3

**Attractions: Frequency of Staff Perception (n = 77)**

<table>
<thead>
<tr>
<th>Enjoyment</th>
<th>Frequency (% Do the most)</th>
<th>Frequency (% Like the Most)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resists (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>1 (1.3)</td>
<td>1 (1.3)</td>
</tr>
<tr>
<td>Tolerates (2)</td>
<td>10 (13.0)</td>
<td>6 (7.8)</td>
</tr>
<tr>
<td>(3)</td>
<td>29 (37.7)</td>
<td>23 (29.9)</td>
</tr>
<tr>
<td>Actively Enjoys (4)</td>
<td>37 (48.1)</td>
<td>47 (61.0)</td>
</tr>
<tr>
<td>How Often</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yearly (1)</td>
<td>43 (55.8)</td>
<td>54 (70.1)</td>
</tr>
<tr>
<td>Monthly (2)</td>
<td>28 (36.4)</td>
<td>21 (27.3)</td>
</tr>
<tr>
<td>Weekly (3)</td>
<td>6 (7.8)</td>
<td>2 (2.6)</td>
</tr>
<tr>
<td>Daily (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too Little (1)</td>
<td>7 (9.1)</td>
<td>14 (18.2)</td>
</tr>
<tr>
<td>(2)</td>
<td>19 (24.7)</td>
<td>23 (29.9)</td>
</tr>
<tr>
<td>Just Right (3)</td>
<td>48 (62.3)</td>
<td>39 (50.6)</td>
</tr>
<tr>
<td>(4)</td>
<td>3 (3.9)</td>
<td>1 (1.3)</td>
</tr>
<tr>
<td>Too Much (5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4

*Frequency of Practical Opportunities (n = 87)*

<table>
<thead>
<tr>
<th>Practical Opportunities</th>
<th>Number of Frequency (%)</th>
<th>Do the most Frequency (%)</th>
<th>Like the most Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Errands</td>
<td>72 (82.8)</td>
<td>32 (36.8)</td>
<td>20 (23.0)</td>
</tr>
<tr>
<td>Clothes Shopping</td>
<td>71 (81.6)</td>
<td>17 (19.5)</td>
<td>29 (33.3)</td>
</tr>
<tr>
<td>Hairdresser/Barber</td>
<td>66 (75.9)</td>
<td>10 (11.5)</td>
<td>15 (17.2)</td>
</tr>
<tr>
<td>Grocery Shopping</td>
<td>59 (67.8)</td>
<td>18 (20.7)</td>
<td>15 (17.2)</td>
</tr>
<tr>
<td>Banking</td>
<td>52 (59.8)</td>
<td>3 (3.4)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>38 (43.7)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Post Office</td>
<td>18 (20.7)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Esthetics/Beauty</td>
<td>7 (8.0)</td>
<td>-</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Job/Agency</td>
<td>4 (4.6)</td>
<td>3 (3.4)</td>
<td>3 (3.4)</td>
</tr>
<tr>
<td>Library</td>
<td>1 (1.1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Medical Appts.</td>
<td>1 (1.1)</td>
<td>1 (1.1)</td>
<td>-</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>3 (3.4)</td>
<td>3 (3.4)</td>
<td></td>
</tr>
</tbody>
</table>
Table 5

Practical Opportunities: Frequency of Staff Perception (n = 84)

<table>
<thead>
<tr>
<th></th>
<th>Do the Most</th>
<th>Like the Most</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enjoyment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resists (0)</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>(1)</td>
<td>1 (1.2)</td>
<td>-</td>
</tr>
<tr>
<td>Tolerates (2)</td>
<td>25 (29.8)</td>
<td>14 (16.7)</td>
</tr>
<tr>
<td>(3)</td>
<td>27 (32.1)</td>
<td>29 (34.5)</td>
</tr>
<tr>
<td>Actively Enjoys (4)</td>
<td>31 (36.9)</td>
<td>41 (48.8)</td>
</tr>
<tr>
<td><strong>How Often</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never (0)</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Yearly (1)</td>
<td>1 (1.2)</td>
<td>6 (7.1)</td>
</tr>
<tr>
<td>Monthly (2)</td>
<td>26 (31.0)</td>
<td>38 (45.2)</td>
</tr>
<tr>
<td>Weekly (3)</td>
<td>49 (58.3)</td>
<td>37 (44.0)</td>
</tr>
<tr>
<td>Daily (4)</td>
<td>8 (9.5)</td>
<td>3 (3.6)</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too Little (1)</td>
<td>8 (9.5)</td>
<td>9 (10.7)</td>
</tr>
<tr>
<td>(2)</td>
<td>16 (19.0)</td>
<td>12 (14.3)</td>
</tr>
<tr>
<td>Just Right (3)</td>
<td>53 (63.1)</td>
<td>60 (71.4)</td>
</tr>
<tr>
<td>(4)</td>
<td>7 (8.3)</td>
<td>3 (3.6)</td>
</tr>
<tr>
<td>Too Much (5)</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>
Table 6

*Frequency of Dining/Entertainment (n = 87)*

<table>
<thead>
<tr>
<th>Number of Dining/Entertainment</th>
<th>Do the Most</th>
<th>Like the Most</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (%)</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Restaurants</td>
<td>70 (80.5)</td>
<td>15 (17.2)</td>
</tr>
<tr>
<td>Fast Food</td>
<td>70 (80.5)</td>
<td>16 (18.4)</td>
</tr>
<tr>
<td>Donut Shop</td>
<td>66 (75.9)</td>
<td>31 (35.6)</td>
</tr>
<tr>
<td>Movies</td>
<td>61 (70.1)</td>
<td>7 (8.0)</td>
</tr>
<tr>
<td>Dances</td>
<td>56 (64.4)</td>
<td>14 (16.1)</td>
</tr>
<tr>
<td>Café</td>
<td>22 (25.3)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Pubs</td>
<td>5 (5.7)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Night Club</td>
<td>1 (1.1)</td>
<td>-</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theater/Plays</td>
<td>9 (10.3)</td>
<td>-</td>
</tr>
<tr>
<td>Bakery</td>
<td>3 (3.4)</td>
<td>-</td>
</tr>
<tr>
<td>Community dining</td>
<td>1 (1.1)</td>
<td>-</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>2 (2.3)</td>
<td>2 (2.3)</td>
</tr>
</tbody>
</table>
Table 7

*Dining/Entertainment: Frequency of Staff Perception (n = 85)*

<table>
<thead>
<tr>
<th>Enjoyment</th>
<th>Do the Most Frequency (%)</th>
<th>Like the Most Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resists (0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(1)</td>
<td>1 (1.2)</td>
<td>-</td>
</tr>
<tr>
<td>Tolerates (2)</td>
<td>4 (4.7)</td>
<td>3 (3.5)</td>
</tr>
<tr>
<td>(3)</td>
<td>24 (28.2)</td>
<td>22 (25.9)</td>
</tr>
<tr>
<td>Actively Enjoys (4)</td>
<td>56 (65.9)</td>
<td>60 (70.6)</td>
</tr>
<tr>
<td>How Often</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never (0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Yearly (1)</td>
<td>1 (1.2)</td>
<td>5 (5.9)</td>
</tr>
<tr>
<td>Monthly (2)</td>
<td>40 (47.1)</td>
<td>52 (61.2)</td>
</tr>
<tr>
<td>Weekly (3)</td>
<td>39 (45.9)</td>
<td>25 (29.4)</td>
</tr>
<tr>
<td>Daily (4)</td>
<td>5 (5.9)</td>
<td>3 (3.5)</td>
</tr>
<tr>
<td>Access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too Little (1)</td>
<td>14 (16.5)</td>
<td>21 (24.7)</td>
</tr>
<tr>
<td>(2)</td>
<td>32 (37.6)</td>
<td>35 (41.2)</td>
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<tr>
<td>Just Right (3)</td>
<td>33 (38.8)</td>
<td>27 (31.8)</td>
</tr>
<tr>
<td>(4)</td>
<td>6 (7.1)</td>
<td>2 (2.4)</td>
</tr>
<tr>
<td>Too Much (5)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
### Table 8

**Frequency of Visiting Others (n = 87)**

<table>
<thead>
<tr>
<th>Visit Location</th>
<th>Number of Visiting Others</th>
<th>Do the Most</th>
<th>Like the Most</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (%)</td>
<td>Frequency (%)</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Homes of Friend with DD</td>
<td>57 (65.5)</td>
<td>46 (52.9)</td>
<td>39 (44.8)</td>
</tr>
<tr>
<td>Immediate Family’s House</td>
<td>31 (35.6)</td>
<td>21 (24.1)</td>
<td>25 (28.7)</td>
</tr>
<tr>
<td>Going to a Friend’s House</td>
<td>9 (10.3)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-DD Friend’s House</td>
<td>5 (5.7)</td>
<td>2 (2.3)</td>
<td>3 (3.4)</td>
</tr>
<tr>
<td>Extended Family’s House</td>
<td>3 (3.4)</td>
<td>-</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Family’s Friend’s House</td>
<td>1 (1.1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff’s Home</td>
<td>3 (3.4)</td>
<td>1 (1.1)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Community Home</td>
<td>1 (1.1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other Group Homes</td>
<td>10 (11.5)</td>
<td>1 (1.1)</td>
<td>2 (2.3)</td>
</tr>
<tr>
<td>Visit Participant</td>
<td>-</td>
<td>16 (18.4)</td>
<td>16 (18.4)</td>
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<td>Not Applicable</td>
<td>-</td>
<td>16 (18.4)</td>
<td>16 (18.4)</td>
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</table>
### Table 9

**Visiting Others: Frequency of Staff Perception (n = 71)**

<table>
<thead>
<tr>
<th></th>
<th>Do the Most Frequency (%)</th>
<th>Like the Most Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enjoyment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resists (0)</td>
<td>2 (2.8)</td>
<td>1 (1.4)</td>
</tr>
<tr>
<td>(1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tolerates (2)</td>
<td>18 (25.4)</td>
<td>14 (19.7)</td>
</tr>
<tr>
<td>(3)</td>
<td>22 (31.0)</td>
<td>19 (26.8)</td>
</tr>
<tr>
<td>Actively Enjoys (4)</td>
<td>29 (40.8)</td>
<td>37 (52.1)</td>
</tr>
<tr>
<td><strong>How Often</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never (0)</td>
<td>2 (2.8)</td>
<td>3 (4.2)</td>
</tr>
<tr>
<td>Yearly (1)</td>
<td>21 (29.6)</td>
<td>27 (38.0)</td>
</tr>
<tr>
<td>Monthly (2)</td>
<td>35 (49.3)</td>
<td>30 (42.3)</td>
</tr>
<tr>
<td>Weekly (3)</td>
<td>11 (15.5)</td>
<td>10 (14.1)</td>
</tr>
<tr>
<td>Daily (4)</td>
<td>2 (2.8)</td>
<td>1 (1.4)</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too Little (1)</td>
<td>14 (19.7)</td>
<td>22 (31.0)</td>
</tr>
<tr>
<td>(2)</td>
<td>17 (23.9)</td>
<td>17 (23.9)</td>
</tr>
<tr>
<td>Just Right (3)</td>
<td>34 (47.9)</td>
<td>29 (40.8)</td>
</tr>
<tr>
<td>(4)</td>
<td>5 (7.0)</td>
<td>3 (4.2)</td>
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<tr>
<td>Too Much (5)</td>
<td>1 (1.4)</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 10

*Frequency of Place of Worship (n =87)*

<table>
<thead>
<tr>
<th>Number of Place of Worship</th>
<th>Do the Most</th>
<th>Like the Most</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (%)</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Church</td>
<td>37 (42.5)</td>
<td>26 (29.9)</td>
</tr>
<tr>
<td>Temple</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mosque</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Fellowship</td>
<td>11 (12.6)</td>
<td>9 (10.3)</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendship Club</td>
<td>11 (12.6)</td>
<td>5 (5.7)</td>
</tr>
<tr>
<td>Praise &amp; Worship Club</td>
<td>1 (1.1)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>47 (54.0)</td>
<td>46 (52.9)</td>
</tr>
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Table 11

*Place of Worship: Frequency of Staff Perception (n = 40)*

<table>
<thead>
<tr>
<th></th>
<th>Do the Most</th>
<th>Like the Most</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (%)</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td><strong>Enjoyment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resists (0)</td>
<td>1 (2.5)</td>
<td>1 (2.4)</td>
</tr>
<tr>
<td>(1)</td>
<td>1 (2.5)</td>
<td>1 (2.4)</td>
</tr>
<tr>
<td>Tolerates (2)</td>
<td>7 (17.5)</td>
<td>6 (14.6)</td>
</tr>
<tr>
<td>(3)</td>
<td>14 (35.0)</td>
<td>14 (34.1)</td>
</tr>
<tr>
<td>Actively Enjoys (4)</td>
<td>17 (42.5)</td>
<td>19 (46.3)</td>
</tr>
<tr>
<td><strong>How Often</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never (0)</td>
<td>-</td>
<td>1 (2.4)</td>
</tr>
<tr>
<td>Yearly (1)</td>
<td>3 (7.5)</td>
<td>3 (7.3)</td>
</tr>
<tr>
<td>Monthly (2)</td>
<td>10 (25.0)</td>
<td>11 (26.8)</td>
</tr>
<tr>
<td>Weekly (3)</td>
<td>27 (67.5)</td>
<td>26 (63.4)</td>
</tr>
<tr>
<td>Daily (4)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too Little (1)</td>
<td>-</td>
<td>2 (4.9)</td>
</tr>
<tr>
<td>(2)</td>
<td>8 (20.0)</td>
<td>7 (17.1)</td>
</tr>
<tr>
<td>Just Right (3)</td>
<td>28 (70.0)</td>
<td>29 (70.7)</td>
</tr>
<tr>
<td>(4)</td>
<td>3 (7.5)</td>
<td>2 (4.9)</td>
</tr>
<tr>
<td>Too Much (5)</td>
<td>1 (2.5)</td>
<td>1 (2.4)</td>
</tr>
</tbody>
</table>
Table 12

Frequency of Passive Leisure Outside the Home (n = 87)

<table>
<thead>
<tr>
<th>Passive Leisure</th>
<th>Number of Frequency (%)</th>
<th>Do the Most Frequency (%)</th>
<th>Like the Most Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car Rides</td>
<td>82 (94.3)</td>
<td>74 (85.1)</td>
<td>53 (60.9)</td>
</tr>
<tr>
<td>Going to the Mall</td>
<td>70 (80.5)</td>
<td>11 (12.6)</td>
<td>22 (25.3)</td>
</tr>
<tr>
<td>Bus Rides</td>
<td>12 (13.8)</td>
<td>-</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Train Rides</td>
<td>8 (9.2)</td>
<td>-</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boat Rides</td>
<td>8 (9.2)</td>
<td>-</td>
<td>2 (2.3)</td>
</tr>
<tr>
<td>Plane Rides</td>
<td>3 (3.4)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trips/Vacations</td>
<td>4 (4.6)</td>
<td>-</td>
<td>6 (6.9)</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>-</td>
<td>2 (2.3)</td>
<td>2 (2.3)</td>
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</tbody>
</table>
Table 13

*Passive Leisure Outside the Home: Frequency of Staff Perception (n = 85)*

<table>
<thead>
<tr>
<th>Enjoyment</th>
<th>Do the Most</th>
<th>Like the Most</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (%)</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Resists (0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tolerates (2)</td>
<td>7 (8.2)</td>
<td>4 (4.7)</td>
</tr>
<tr>
<td>(3)</td>
<td>30 (35.3)</td>
<td>23 (27.1)</td>
</tr>
<tr>
<td>Actively Enjoys (4)</td>
<td>48 (56.5)</td>
<td>58 (68.2)</td>
</tr>
<tr>
<td>How Often</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yearly (1)</td>
<td>-</td>
<td>8 (9.4)</td>
</tr>
<tr>
<td>Monthly (2)</td>
<td>8 (9.4)</td>
<td>15 (17.6)</td>
</tr>
<tr>
<td>Weekly (3)</td>
<td>46 (54.1)</td>
<td>42 (49.4)</td>
</tr>
<tr>
<td>Daily (4)</td>
<td>31 (36.5)</td>
<td>20 (23.5)</td>
</tr>
<tr>
<td>Access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too Little (1)</td>
<td>9 (10.6)</td>
<td>11 (12.9)</td>
</tr>
<tr>
<td>(2)</td>
<td>20 (23.5)</td>
<td>28 (32.9)</td>
</tr>
<tr>
<td>Just Right (3)</td>
<td>50 (58.8)</td>
<td>43 (50.6)</td>
</tr>
<tr>
<td>(4)</td>
<td>4 (4.7)</td>
<td>1 (1.2)</td>
</tr>
<tr>
<td>Too Much (5)</td>
<td>2 (2.4)</td>
<td>2 (2.4)</td>
</tr>
</tbody>
</table>
Table 14

*Frequency of Outdoor Activities (n = 87)*

<table>
<thead>
<tr>
<th>Number of Outdoor Activities</th>
<th>Do the Most</th>
<th>Like the Most</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Frequency (%)</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Local Park</td>
<td>78 (89.7)</td>
<td>18 (20.7)</td>
</tr>
<tr>
<td>Walking</td>
<td>66 (75.9)</td>
<td>46 (52.9)</td>
</tr>
<tr>
<td>Conservation Area</td>
<td>51 (58.6)</td>
<td>5 (5.7)</td>
</tr>
<tr>
<td>Beach</td>
<td>37 (42.5)</td>
<td>-</td>
</tr>
<tr>
<td>Camping</td>
<td>19 (21.8)</td>
<td>-</td>
</tr>
<tr>
<td>Boating</td>
<td>10 (11.5)</td>
<td>-</td>
</tr>
<tr>
<td>Fishing</td>
<td>10 (11.5)</td>
<td>-</td>
</tr>
<tr>
<td>Hiking</td>
<td>9 (10.3)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Biking</td>
<td>3 (3.4)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheeling</td>
<td>14 (16.1)</td>
<td>11 (12.6)</td>
</tr>
<tr>
<td>Picnics</td>
<td>6 (6.9)</td>
<td>3 (3.4)</td>
</tr>
<tr>
<td>Sitting Outside</td>
<td>3 (3.4)</td>
<td>2 (2.3)</td>
</tr>
<tr>
<td>Bird Watching</td>
<td>1 (1.1)</td>
<td>-</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 15

Outdoor Activities: Frequency of Staff Perception (n = 87)

<table>
<thead>
<tr>
<th>Enjoyment</th>
<th>Do the Most</th>
<th>Like the Most</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (%)</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Resists (0)</td>
<td>1 (1.1)</td>
<td>-</td>
</tr>
<tr>
<td>(1)</td>
<td>2 (2.3)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Tolerates (2)</td>
<td>20 (23.0)</td>
<td>7 (8.0)</td>
</tr>
<tr>
<td>(3)</td>
<td>29 (33.3)</td>
<td>26 (29.9)</td>
</tr>
<tr>
<td>Actively Enjoys (4)</td>
<td>35 (40.2)</td>
<td>53 (60.9)</td>
</tr>
<tr>
<td>How Often</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yearly (1)</td>
<td>2 (2.3)</td>
<td>16 (18.4)</td>
</tr>
<tr>
<td>Monthly (2)</td>
<td>26 (29.9)</td>
<td>32 (36.8)</td>
</tr>
<tr>
<td>Weekly (3)</td>
<td>48 (55.2)</td>
<td>34 (39.1)</td>
</tr>
<tr>
<td>Daily (4)</td>
<td>11 (12.6)</td>
<td>5 (5.7)</td>
</tr>
<tr>
<td>Access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too Little (1)</td>
<td>5 (5.8)</td>
<td>13 (14.9)</td>
</tr>
<tr>
<td>(2)</td>
<td>25 (29.1)</td>
<td>34 (39.1)</td>
</tr>
<tr>
<td>Just Right (3)</td>
<td>45 (52.3)</td>
<td>36 (41.4)</td>
</tr>
<tr>
<td>(4)</td>
<td>9 (10.5)</td>
<td>4 (4.6)</td>
</tr>
<tr>
<td>Too Much (5)</td>
<td>2 (2.3)</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 16

*Frequency of Sports/Recreation (n = 87)*

<table>
<thead>
<tr>
<th>Sports/Recreation</th>
<th>Frequency (%)</th>
<th>Do the Most</th>
<th>Like the Most</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swimming</td>
<td>56 (64.4)</td>
<td>39 (44.8)</td>
<td>42 (48.3)</td>
</tr>
<tr>
<td>Bowling</td>
<td>41 (47.1)</td>
<td>18 (20.7)</td>
<td>14 (16.1)</td>
</tr>
<tr>
<td>Health Club</td>
<td>12 (13.8)</td>
<td>5 (5.7)</td>
<td>5 (5.7)</td>
</tr>
<tr>
<td>Basketball</td>
<td>7 (8.0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Horseback Riding</td>
<td>6 (6.9)</td>
<td>1 (1.1)</td>
<td>3 (3.4)</td>
</tr>
<tr>
<td>Baseball</td>
<td>4 (4.6)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Softball</td>
<td>2 (2.3)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Skating</td>
<td>1 (1.1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Skiing</td>
<td>1 (1.1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hockey</td>
<td>1 (1.1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Track/Walking Club</td>
<td>2 (2.3)</td>
<td>1 (1.1)</td>
<td>-</td>
</tr>
<tr>
<td>Sail Ability</td>
<td>1 (1.1)</td>
<td>1 (1.1)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Golf</td>
<td>1 (1.1)</td>
<td>1 (1.1)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Bocce Ball</td>
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<td>2 (2.3)</td>
<td>2 (2.3)</td>
</tr>
<tr>
<td>Dance Class</td>
<td>2 (2.3)</td>
<td>-</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>Snow Activities</td>
<td>2 (2.3)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Floor Hockey</td>
<td>1 (1.1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Soccer</td>
<td>1 (1.1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>-</td>
<td>19 (21.8)</td>
<td>18 (20.7)</td>
</tr>
</tbody>
</table>
Table 17

*Sports/Recreation: Frequency of Staff Perception (n = 68)*

<table>
<thead>
<tr>
<th>Enjoyment</th>
<th>Do the Most Frequency (%)</th>
<th>Like the Most Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resists (0)</td>
<td>-</td>
<td>1 (1.4)</td>
</tr>
<tr>
<td>(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tolerates (2)</td>
<td>15 (22.1)</td>
<td>13 (18.6)</td>
</tr>
<tr>
<td>(3)</td>
<td>16 (23.5)</td>
<td>15 (21.4)</td>
</tr>
<tr>
<td>Actively Enjoys (4)</td>
<td>36 (52.9)</td>
<td>41 (58.6)</td>
</tr>
<tr>
<td>How Often</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never (0)</td>
<td>-</td>
<td>2 (2.9)</td>
</tr>
<tr>
<td>Yearly (1)</td>
<td>4 (5.9)</td>
<td>5 (7.1)</td>
</tr>
<tr>
<td>Monthly (2)</td>
<td>15 (22.1)</td>
<td>18 (25.7)</td>
</tr>
<tr>
<td>Weekly (3)</td>
<td>49 (72.1)</td>
<td>45 (64.3)</td>
</tr>
<tr>
<td>Daily (4)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too Little (1)</td>
<td>8 (11.8)</td>
<td>15 (21.7)</td>
</tr>
<tr>
<td>(2)</td>
<td>12 (17.6)</td>
<td>13 (18.8)</td>
</tr>
<tr>
<td>Just Right (3)</td>
<td>43 (63.2)</td>
<td>36 (52.2)</td>
</tr>
<tr>
<td>(4)</td>
<td>3 (4.4)</td>
<td>3 (4.3)</td>
</tr>
<tr>
<td>Too Much (5)</td>
<td>2 (2.9)</td>
<td>2 (2.9)</td>
</tr>
</tbody>
</table>
Table 18

Factors that Help to Accessing Activities they “Do the Most”

<table>
<thead>
<tr>
<th>Attractions</th>
<th>Practical Opportunities</th>
<th>Dining and Entertainment</th>
<th>Visiting Others</th>
<th>Place of Worship</th>
<th>Passive Leisure Outside the Home</th>
<th>Outdoor Activities</th>
<th>Sports and Recreation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td>Frequency (%): 9 (11.7)</td>
<td>Frequency (%): 9 (10.7)</td>
<td>Frequency (%): 18 (21.2)</td>
<td>Frequency (%): 24 (33.8)</td>
<td>Frequency (%): 17 (42.5)</td>
<td>Frequency (%): 25 (29.4)</td>
<td>Frequency (%): 39 (44.8)</td>
</tr>
<tr>
<td><strong>Availability</strong></td>
<td>Frequency (%): 16 (20.8)</td>
<td>Frequency (%): 43 (51.2)</td>
<td>Frequency (%): 42 (29.4)</td>
<td>Frequency (%): 22 (31.0)</td>
<td>Frequency (%): 7 (17.5)</td>
<td>Frequency (%): 38 (44.7)</td>
<td>Frequency (%): 45 (51.7)</td>
</tr>
<tr>
<td><strong>Convenience</strong></td>
<td>Frequency (%): 30 (39.0)</td>
<td>Frequency (%): 47 (56.0)</td>
<td>Frequency (%): 47 (55.3)</td>
<td>Frequency (%): 36 (50.7)</td>
<td>Frequency (%): 20 (50.0)</td>
<td>Frequency (%): 46 (54.1)</td>
<td>Frequency (%): 56 (64.4)</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td>Frequency (%): 50 (64.9)</td>
<td>Frequency (%): 54 (64.3)</td>
<td>Frequency (%): 54 (63.5)</td>
<td>Frequency (%): 36 (50.7)</td>
<td>Frequency (%): 26 (65.0)</td>
<td>Frequency (%): 37 (43.5)</td>
<td>Frequency (%): 29 (33.3)</td>
</tr>
<tr>
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DEINSTITUTIONALIZATION & COMMUNITY ACTIVITIES
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Table 20

*Barriers to Accessing Activities they “Do the Most”*

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**Barriers to Accessing Activities they “Like the Most”**

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**Table 22**

*The Degree of Congruence Across each Category*

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<td>Outdoor Activities</td>
<td>87</td>
<td>41</td>
<td>47.1</td>
</tr>
<tr>
<td>Sports/Recreation</td>
<td>69</td>
<td>61</td>
<td>88.4</td>
</tr>
</tbody>
</table>
Table 23

*Summed Congruence Score (1-8) n = 87*

<table>
<thead>
<tr>
<th>Score</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>3.4</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>4.6</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>12.6</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>26.4</td>
</tr>
<tr>
<td>5</td>
<td>24</td>
<td>27.6</td>
</tr>
<tr>
<td>6</td>
<td>12</td>
<td>13.8</td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>10.3</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>1.1</td>
</tr>
</tbody>
</table>

*Note.* Higher score indicating more congruence between the activities people like and do the most.
### Table 24

**DV$s and IV$s Descriptives**

<table>
<thead>
<tr>
<th></th>
<th>$M$</th>
<th>$SD$</th>
<th>$Min$</th>
<th>$Max$</th>
<th>Skew</th>
<th>SE Skew</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>55.21</td>
<td>8.34</td>
<td>33.43</td>
<td>77.10</td>
<td>.66</td>
<td>.26</td>
</tr>
<tr>
<td>Level of Functioning</td>
<td>35.83</td>
<td>15.95</td>
<td>1</td>
<td>80</td>
<td>.21</td>
<td>.26</td>
</tr>
<tr>
<td>Health</td>
<td>1.90</td>
<td>1.89</td>
<td>0</td>
<td>10</td>
<td>2.26</td>
<td>.26</td>
</tr>
<tr>
<td>Square Root Health</td>
<td>1.18</td>
<td>.71</td>
<td>0</td>
<td>3.16</td>
<td>.09</td>
<td>.26</td>
</tr>
<tr>
<td>Challenging Behaviour</td>
<td>13.95</td>
<td>13.84</td>
<td>0</td>
<td>55</td>
<td>1.27</td>
<td>.26</td>
</tr>
<tr>
<td>Square Root</td>
<td>3.08</td>
<td>2.06</td>
<td>0</td>
<td>7.42</td>
<td>.08</td>
<td>.26</td>
</tr>
<tr>
<td>Challenging Behaviour Preference</td>
<td>4.59</td>
<td>1.50</td>
<td>1</td>
<td>8</td>
<td>-.19</td>
<td>.26</td>
</tr>
<tr>
<td>Number of Activities People Do the Most</td>
<td>21.41</td>
<td>6.90</td>
<td>7</td>
<td>38</td>
<td>.11</td>
<td>.26</td>
</tr>
<tr>
<td>Frequency of Activities People Do the Most</td>
<td>17.30</td>
<td>3.49</td>
<td>10</td>
<td>27</td>
<td>.03</td>
<td>.26</td>
</tr>
</tbody>
</table>
### Table 25

*Correlations between Dependent and Independent Variables (N = 87)*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>-</td>
<td>-.10</td>
<td>.11</td>
<td>-.27*</td>
<td>.03</td>
<td>-.13</td>
<td>.03</td>
</tr>
<tr>
<td>2. Level of Functioning</td>
<td>-</td>
<td>-.15</td>
<td>-.14</td>
<td>-.13</td>
<td>.27*</td>
<td>.37**</td>
<td></td>
</tr>
<tr>
<td>3. Square Root Health</td>
<td>-</td>
<td>-.07</td>
<td>-.09</td>
<td>.10</td>
<td>-.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Square Root Challenging Behaviour</td>
<td>-</td>
<td>-.11</td>
<td>.00</td>
<td>-.12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Preference</td>
<td>-</td>
<td>-.06</td>
<td>.19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Number of Activities People Do the Most</td>
<td>-</td>
<td>.58**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Frequency of Activities People Do the Most</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* *p < .05, **p < .001
Table 26

**Predicting the Number of Activities People “Do the Most”**

<table>
<thead>
<tr>
<th>Step 1</th>
<th>R</th>
<th>R²</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.290</td>
<td>.084</td>
<td>-.091</td>
<td>.088</td>
<td>-.108</td>
</tr>
<tr>
<td>Level of Functioning</td>
<td>.121</td>
<td>.049</td>
<td>.258*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Square Root Health</td>
<td>.329</td>
<td>.108</td>
<td>1.569</td>
<td>1.050</td>
<td>.159</td>
</tr>
<tr>
<td>Square Root Challenging Behaviour</td>
<td></td>
<td></td>
<td>-.007</td>
<td>.375</td>
<td>-.002</td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preference</td>
<td>.329</td>
<td>.108</td>
<td>-.029</td>
<td>.501</td>
<td>-.006</td>
</tr>
</tbody>
</table>

*Note.* R² = .084; F (2, 84) = 3.85, p = .025 for Step 1: ΔR² = .024; F (4, 82) = 2.49 p = .050 for Step 2: ΔR² = .000; F (5, 81) = 1.97 p = .092 for Step 3.  
* p < .05
### Table 27

*Predicting the Frequency of Activities People Do the Most*

<table>
<thead>
<tr>
<th>Step</th>
<th>R</th>
<th>R²</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td>0.377</td>
<td>0.142</td>
<td>0.027</td>
<td>0.043</td>
<td>0.064</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td>0.088</td>
<td>0.024</td>
<td>0.378**</td>
</tr>
<tr>
<td>Level of Functioning</td>
<td>0.388</td>
<td>0.150</td>
<td>-0.360</td>
<td>0.512</td>
<td>-0.073</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td>0.088</td>
<td>0.183</td>
<td>-0.052</td>
</tr>
<tr>
<td>Square Root Health</td>
<td>0.449</td>
<td>0.201</td>
<td>0.537</td>
<td>0.237</td>
<td>0.230*</td>
</tr>
<tr>
<td>Square Root Challenging Behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* R² = 0.142; F (2, 84) = 6.98 for Step 1: ΔR² = 0.008; F (4, 82) = 3.63 for Step 2: ΔR² = 0.051; F (5, 81) = 4.08 for Step 3.

* p < .05, ** p < .001
Figure 1. Histogram of Health
Figure 2. Histogram of Square Root Health
Figure 3. Histogram of Challenging Behaviour

Mean = 13.95
Std. Dev. = 13.847
N = 87
Figure 4. Histogram of Square Root of Challenging Behaviour

Mean = 3.08
Std. Dev. = 2.057
N = 87
Figure 5. Boxplot of Square Root of Health
Figure 6. P-P Plot
Figure 7. Histogram of Residuals
Figure 8. Scatterplot
Figure 9. A Conceptual Model of the Factors Affecting the Recreation and Leisure Participation of Children with Disabilities (King et al., 2003)
FACILITIES INITIATIVE STUDY

INTRODUCTION LETTER AND CONSENT FOR CONTACT FOR FORMER RESIDENTS

Instructions for Persons Providing Assisted Consent

We are following up with people who used to live at one of the provincially-operated facilities (Rideau Regional Centre, Huronia Regional Centre, or Southwestern Regional Centre). We want to find out what the move was like for them and how they like their new life. The name of this follow-up project is the Facilities Initiative Study. To help us do this study, we have asked researchers at Brock University to talk to former residents and their families and friends.

The purpose of this package is to introduce former residents to the study and ask them for permission to be contacted by the researchers. If they give permission to be contacted, the researchers will tell them more about the study, and then ask for their consent to participate. Participation is voluntary and confidential. Deciding to participate or not participate will not affect people's ability to get services.

If you are helping someone review and complete the accompanying consent-for-contact form, please answer the following questions, then review and fill in the attached material with the person.

Your name: ________________________________________________________

Your relationship to the individual you are completing the form on behalf of:

☐ Family member
☐ Friend
☐ Agency
☐ Trustee/Public Guardian

Your address: ________________________________________________________

Your telephone number: _____________________________________________

Please return this cover sheet with the attached consent-for-contact form.

Thank you very much for your help.

Yours truly,
Dear Former Facility Resident:

Going from where you used to live (Rideau Regional Centre, Huronia Regional Centre, or Southwestern Regional Centre) to your new life was a big move. Now that you have settled into your new community, we’d like to find out how you are doing.

The Ontario government is checking in with people who used to live at the Rideau Regional Centre, Huronia Regional Centre, or Southwestern Regional Centre. We want to find out what your move was like and how things are going in your new life. We are calling this check-in the Facilities Initiative Study.

To help us do this study, we asked some people from Brock University to talk to former residents and their families and friends. The people from the university are researchers. They want to learn what the move was like for you, what you think about where you live now and what how you feel about your new life.

Would it be okay for the researchers to contact you? If you say yes, there are three ways you may be asked to take part in this study. You can:

- meet with researchers in your home while they talk to you or to your family and the people who help you
- meet with the researcher for a couple of hours as part of a group, or
- let the researchers read information about you that is already in your facility file.

Everything you share with the researchers is confidential. That means they will not tell anyone who they talked to. Their job is to talk to people, look at the information they collect and then let us know what they learned. The researchers will not tell anyone the names of people who have helped with this study.

If you would like to help and be part of this study, please answer the questions that are on the next page. The researchers would be happy to talk to you in English or French, so please let them know what language would be best for you.

To find out more about this study, you can call the research team at this toll-free phone number: 1-877-688-8131. You can also email the team at: fac.initiative@brocku.ca.
Thank you very much for your help.

Yours truly,
Janos Botschner
Project Manager
Facilities Initiative Study
Ministry of Community and Social Services
Facilities Initiative Study with Brock University

☐ Yes, I would like to take part in the study Brock University is doing.

My name is: __________________________________________________________

My address is: __________________________________________________________

My phone number is: ____________________________________________________

My e-mail address is: ____________________________________________________

My date of birth is: _____________________________________________________

I would prefer to speak to the researchers in (please check the language that would be best for you):

☐ English    ☐ French

I would like to take part in this study by (circle check yes or no in the list below.):

- having a researcher visit my home    ☐ Yes    ☐ No
- talking with a researcher as part of a group    ☐ Yes    ☐ No
- letting the researchers read information about me is already in my facility file    ☐ Yes    ☐ No

When you've answered these questions, please put this page in the envelope that came with the letter and put it in the mail. Your letter will be sent to the researchers at Brock University. The researchers hope you can let them know by [2 weeks after mailing date] if you would like to be part of this study.

*Brock University researchers may not be able to include everyone who wants to take part in the study. Who gets chosen will depend on a few things: where people live, how old they are and how many people want to take part in the study.*

Thank you!
INDIVIDUAL PARTICIPANT CONSENT

Quasi-Longitudinal Study: Facilities Initiative Study

Lead Investigator and Contact Person for the Study: Dr. Rosemary Condillac

Principal Investigators  Drs. Rosemary Condillac and Dorthy Griffiths Center for Applied Disability Studies, Brock University

Co-Investigators  Drs. Maurice Feldman, Frances Owen, Jan Frijters Center for Applied Disability Studies, Brock University Dr. Lynn Martin, Lakehead University

Introduction
Before you agree to participate in this research study, it is important that you read and understand the following explanation of the study. It describes the purpose, procedures, benefits and risks associated with the study. All research is voluntary. You are free to withdraw at any time without penalty. If you have questions after you read through this form, feel free to contact the Researchers listed above and/or consult with a family member or friend. You should not sign this form until you are sure you understand everything on it.

Purpose of the Research
The purpose of this research is to independently assess the experience of former residents of the facilities. The goal of this study is to provide important information about the outcomes of deinstitutionalization. We will be conducting a study including as many people as possible who have moved from the facilities since the initiative began in 2005. You are being asked to participate in this study directly or you are being asked as a substitute decision maker to give permission on behalf of an individual with ID. This study will provide an important look at the impact that community living plays in the lives of the persons who have been moved from the facilities.
Description of the Research
If you agree to participate in this study (or if you agree on a participant’s behalf), the participant and a support staff person will be interviewed and asked to complete several measures regarding your adaptation, wellbeing, integration, and quality of life where you live now. The Research Assistants will visit you (the former resident) and your support staff for a day. During this day long visit there will be times when the researcher will interview the participant and support staff, complete structured observations, and ask to access certain pieces of information from your clinical file. Prior to the visit, a package will be sent to support staff so that they can familiarize themselves with some of the questions that will be asked and keep an eye out for certain things that the Research Assistant might ask about. There will also be a few questionnaires completed before the Research Assistant arrives, these will take approximately two hours of staff time. Before we meet you, we would like to collect some information from your old file from the facility where you used to live. With your permission we will get information about your life, health, and well-being from your file as well as a copy of your transition plan and behavioural support plan (if you had one). We will be asking some participants if we can come back and see them again next year.

Potential Harms (Injury, Discomforts or Inconvenience):
If a question makes you feel uncomfortable, ask to skip it. There is potential risk if the confidentiality of the information we collect were to be lost. To protect confidentiality, information will be kept on a coded form that does not have names or other identifying information. We will keep the names of staff and participants and other identifying information (such as date of birth) on a separate form. All information we collect will be kept in a secure research office, and only authorized research staff will have access to the information.

Potential Benefits:
There are no immediate benefits to you participating in this study. You will not be paid for participating in this study. The true benefits of this study will come from sharing what we learn from the participants that may help others who are involved in facilities closures around the world.

Confidentiality and Privacy:
Confidentiality will be respected and no information that discloses your identity will be released or published without consent, unless required by law.

All information that identifies you or the individual will be kept confidential and stored and locked in our lab at Brock University. Only selected study personnel will have access to this information. In addition, electronic files that will not include indentifying information, but will be identified using a secret code, stored on a secure institutional network and will be password protected. It is important to understand that despite these protections being in place, experience in similar
studies indicates that there is a risk of unintentional release of information. The principal investigators will protect your records and keep all the information in your study file confidential to the greatest extent possible. The chance that this information will be given to someone else is quite small.

Publication of Results:
In the event that the results of this study are published or presented at conferences, seminars or other public forums, no individual information of identifying information will be released. We will supply a summary of the results of our study after it is over if you tell us you want one. The results will be published both by the Ministry of Community and Social Services and the investigators of this research.

Secondary Use of Data:
All members of the academic community, the researchers may, from time to time, ask the Research Ethics Board at Brock University for permission to used the information collected in this study as part of other research studies, including research carried out by students under the close supervision of the investigators of this research.

Reimbursement:
You will not be paid for participating in this study. Instead the Center for Applied Disability Studies will be offering an educational event to the supporting agency as a token of our appreciation.

Participation and Withdrawal:
Participation in research is voluntary. If you choose not to participate, you will not be affected in any way. Your decision to participate or not participate in this research will have no effect on you or your agency. If you would like to withdraw from the study, you can do so at any time by contacting us by phone.

Study Contact Information:
If you have any questions about this research study, you may contact Dr. Rosemary Condillac (905-688-5550 ext. 5675 or 1-877-688-8131, e-mail: rcondillac@brocku.ca).

Research Ethics Board Contact:
The Research Ethics Board at Brock University may need to review records for monitoring purposes. As part of this review, someone may contact you from the Research Ethics Board to discuss your experience in the research study.

This study has been reviewed and approved by the Brock Research Ethics Board. (File #08-027) If you have questions or concerns about this study, you make call the investigators listed above or the Brock University Research Ethics Officer in the Office of Research Services at 905-688-5550 ext. 3035, e-mail: reb@brocku.ca.
 FOR RESEARCH PARTICIPANT – FORMER RESIDENT

Quasi-Longitudinal Study: Facility Initiative Research Evaluation

Consent to Participate in a Research Study:

Name of Participant: ________________________________________________

Date of Birth: ________________________________________________

Consent:

- I acknowledge that the research study described above has been explained to me and that any questions I (or my substitute decision maker) have asked have been answered to my satisfaction.
- I have been informed of my right to choose that I (or my substitute decision maker) not participate in the study. As well, the potential risk, harms and discomforts have been explained to me as I understand the benefits of participating in the research study.
- I understand that my legal rights or those of the individual I represent have not been waived, nor have I released the investigators, sponsors, or involved institutions from their legal and professional duties.
- I know that I may ask now or in the future any questions I have about the study or the research procedures.
- I agree that the researcher can visit me and my support staff where I live now, and will be talking to me, observing how I am doing in my house and talking to my support staff about my health, well-being, challenges that I might have and the kind of care I am receiving.
- I also agree that the researcher can write down information about me from my file where I live now, and from my old file at the facility where I used to live, including actual copies of my transition plan and behaviour support plan.
- I have been assured that information collected in the study will be kept confidential and that information will not be released or printed that would disclose the personal identity of participants without permission, unless required by law.
- I understand that the data collected in this study may be used from time to time to address future research questions under the supervision of the Investigators of this research and that privacy and confidentiality will be protected in such situations.
- I have been given sufficient time to read and understand the above information.

(Signature Page Follows)
By signing this consent, I agree to participate in the study. I will be given a signed copy of this consent form.

X ____________________  __________________________
Signature of Individual Participant  Name (PRINTED)  Date
(if applicable)

By initialing here __________ I agree for the researchers to contact me in the future to participate in other research projects.

X ____________________  __________________________
Signature of Substitute Decision Maker  Name (PRINTED)  Date

By Initialing here __________ I agree for the researchers to contact me in the future to participate in other research projects

Please provide a brief description of the nature of the information that has deemed you eligible to represent the individual named above:

________________________________________________
________________________________________________
________________________________________________

X ____________________  __________________________
Signature of Investigator  Name (PRINTED)  Date
AGENCY CONSENTS

Quasi Longitudinal Study: Facilities Initiative Study

Lead Investigator and Contact Person for the Study: Dr. Rosemary Condillac

Principal Investigators: Drs. Rosemary Condillac and Dorothy Griffiths
Centre for Applied Disability Studies, Brock University

Co-Investigators: Drs. Maurice Feldman, Frances Owen, Jan Frijters
Centre for Applied Disability Studies, Brock University
Dr. Lynn Martin, Lakehead University.

Introduction
Before you agree to participate in this research study, it is important that you read and understand the following explanation of the study. It describes the purpose, procedures, benefits, and risks associated with the study. All research is voluntary. You are free to withdraw at any time without penalty. If you have questions after you read through this form, feel free to contact the Research Associate listed above and/or consult with your employer. You should not sign this form until you are sure you understand everything on it.

Purpose of the Research
The purpose of this study is to independently assess the experience of former residents. The goal of this study is to provide important information about the outcomes of deinstitutionalization. We will be conducting a study including as many people as possible who have moved from the facilities since the initiative began in 2005. You are being asked to participate because a resident of your agency (or their substitute decision maker) has agreed that they can participate. This study will provide an important look at the impact that community living plays in the lives of the persons who have been moved from the facilities.

Description of the Research
If you agree to participate in this study, you will be asked to be interviewed to complete several measures regarding the adaptation, wellbeing, integration, and quality of life of the individual throughout their first year in the community. The Research Assistants will visit your agency for a day. During this day long visit there will be times when the researcher will interview you and/or the study participant, complete structured observations of the individual and those providing support, and ask to access certain pieces of information from the current clinical file (e.g. behavioural incidents reports from the previous month, health information).

Prior to the visit, a package will be sent to you so that you can familiarize yourself with some of the questions that will be asked and keep an eye out for certain things that the Research Assistant might ask you about. There will also be a few questionnaires for you to complete before the research assistant arrives, these will take approximately two hours of your time.

**Potential Harms (Injury, Discomforts or Inconvenience):**

If a question makes you feel uncomfortable, you can skip any question you don’t want to answer. There is potential risk to you if the confidentiality of the information you give us were to be lost. To protect your confidentiality, your information will be kept on a coded form that does not have your name or other identifying information. We will keep your name and that of the resident and other identifying information (such as name and date of birth) on a separate form. All information you give us will be kept in a secure research office, and only authorized research staff will have access to the information.

**Potential Benefits:**

There are no immediate benefits to you to participating in this study. You will not be paid for participating in this study. However each agency that participates and completes the measures for the individual, will receive an educational voucher. The voucher will be equal one free admission to an educational event offered by the Centre for Applied Disability Studies in the 2011-2012 years for every visit we make to your agency on behalf of this individual.

Moreover the true benefits of this study will come from sharing what we learn from you and from other participants that may help others who are involved in facilities closures around the world.

**Confidentiality and Privacy:**

Confidentiality will be respected and no information that discloses your identity will be released or published without consent, unless required by law.

All information that identifies you or the individual will be kept confidential and stored and locked in our Lab at Brock University, that only selected study personnel will have access to. In addition, electronic files that will not include identifying information, but will be identified using a secret code, stored on a secure institutional network and will be password protected. It is important to understand that despite these protections being in place, experience in similar studies indicates that there is the risk of unintentional release of information. The principal investigators will protect your records and keep all the
information regarding you and the individual you support confidential to the greatest extent possible. The chance that this information will accidentally be given to someone else is quite small.

**Publication of Results:**
In the event that the results of this study are published or presented at conferences, seminars or other public forums, no individual information or identifying information will be released. We will give you a summary of the results of our study after it is over if you tell us you want one. The results will be published both by the Ministry of Community and Social Services and the Investigators of this research.

**Secondary use of data:**
As members of the academic community, the researchers may, from time to time, ask the Research Ethics Board at Brock University for permission to use the information collected in this study, as part of other research studies, including research carried out by students under the close supervision of the Investigators of this research.

**Reimbursement:**
You will not be paid for participating in this study. Instead the Centre for Applied Disability Studies will be offering an educational event to your agency as a token of our appreciation.

**Participation and Withdrawal:**
Participation in research is voluntary. If you choose not to participate, you will not be affected in any way. Your decision to participate or not participate in this research study will have no effect on you or your agency. If you would like to withdraw from the study, you can do so at any time by contacting us by phone.

**Study Contact Information:**
If you have any questions about this research study, you may contact Dr. Rosemary Condillac (905-688-5550 ext. 5675 or 1-877-688-8131 e-mail: rcondillac@brocku.ca.)

**Research Ethics Board Contact:**
The Research Ethics Board at Brock University may need to review records for monitoring purposes. As part of this review, someone may contact you from the Research Ethics Board to discuss your experience in the research study.

This study has been reviewed and approved by the Brock Research Ethics Board. (File #08-027) If you have questions or concerns about this study you may call the investigators listed above or the Brock University Research Ethics Officer in the Office of Research Services at 905-688-5550 ext. 3035, email: reb@brocku.ca.
For Agency Staff Members

Quasi Longitudinal Study: Facility Initiative Research Evaluation

Consent to Participate in a Research Study:

Consent:

I acknowledge that the research study described above has been explained to me and that any questions that I have asked have been answered to my satisfaction.

I have been informed of my right to choose to not participate in the study. As well, the potential risks, harms and discomforts have been explained to me and I also understand the benefits of participating in the research study.

I understand that I have not waived my legal rights nor released the investigators, sponsors, or involved institutions from their legal and professional duties.

I know that I may ask now or in the future any questions I have about the study or the research procedures.

I have been assured that records relating to me and the individual being surveyed will be kept confidential and that no information will be released or printed that would disclose my personal identity nor that of the individual being surveyed without permission unless required by law.

I understand that the data collected in this study may be used from time to time to address future research questions under the supervision of the Investigators of this research and that my privacy and confidentiality will be protected in such situations.

I have been given sufficient time to read and understand the above information.

By signing this consent, I agree to participate in this study. I will be given a signed copy of this consent form.

X ____________________
Signature of Agency Staff Participant Name (printed) Date

By initialing here __________ I agree for the researchers to contact me in the future to participate in other research projects.

If other staff will be observed or will assist in completing forms, please have them sign below.

X ____________________
Signature of Agency Staff Participant Name (printed) Date
By initialing here I agree for the researchers to contact me in the future to participate in other research projects.

X
Signature of Agency Staff Participant ____________________________ Name (printed) ____________________________ Date

By initialing here I agree for the researchers to contact me in the future to participate in other research projects.

Signature of Investigator ____________________________ Name (printed) ____________________________ Date
Appendix D
Community, Recreation and Leisure Interview
Research Version 1.0 Community, Recreation and Leisure Interview
Condillac & White 2010

Participant’s ID#: __________________ Date: __________ Interviewer: __________

Instructions:
Community involvement entails the amount and variety of contact that an individual has with community services and events outside their home environment. Leisure activities entail a variety of activities an individual may have within one’s home environment.

At the top of each page is a broad category and its definition. Directly below there is a list of activities that comprise each specific category. Please check the boxes of potential activities the person may have access to. If there are other activities not listed, please include them in the spaces provided (i.e., other).

Then ask which of the listed activities does the person do the most and write down the answer in the space provided. Ask the following four questions in relation to that activity.

Then ask which of the listed activities would the person like to do most and write down the answer in the space provided. Ask the following four questions in relation to that activity. However, if the person does not have a preference, report it and then skip section B.

Repeat this process for each category of activities.

Thank you!

Sample:

| ☑ Art shows | ☐ Concerts | ☑ Other: Museum | ☐ Car Shows |
| ☐ Fairs | ☐ Historical sites |

A. Which activity does the person do the most?

1. Does the person enjoy these activities?
   - 0: Resists
   - 1: Tolerates
   - 2: Actively
   - 3: Enjoys

2. How often does the person participate in these activities?
   - 0: Never
   - 1: Yearly
   - 2: Monthly
   - 3: Weekly
   - 4: Daily

3. Does the person have as much access to these as they would like?
   - 1: Too little
   - 2: Just Right
   - 3: 4: Too Much

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike through)
   - Cost
   - Availability
   - Convenience
   - Transportation
   - Person’s behaviour
   - Person’s mobility
   - Person’s health
   - Other’s behaviour
   - Other’s mobility
   - Other’s health
   - Staff ratio
   - Staff preference
1) **Attractions**: are places or events that are intended to attract visitors

- Art shows
- Concerts
- Other:
- Fairs
- Historical sites
- Museums
- Exhibitions
- Amusement parks
- Sporting events

---

B. Which activity does the person **do** the most?

1. **Does the person enjoy these activities?**

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resists</td>
<td>Tolerates</td>
<td>Actively Enjoys</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. **How often does the person participate in these activities?**

   | 0 | 1 | 2 | 3 | 4 |
   | Never | Yearly | Monthly | Weekly | Daily |

3. **Does the person have as much access to these as they would like?**

   | 1 | 2 | 3 | 4 | 5 |
   | Too little | Just Right | Too Much |

4. **What helps/hinders access?** (Interviewer note, helps (+), hinders (-) or Strike-through)

   | Cost | Availability | Convenience | Transportation |
   | Person’s behaviour | Person’s mobility | Person’s health | Other’s behaviour | Staff preference |
   | Other’s mobility | Other’s health | Staff ratio | Staff preference |

---

C. Which activity does the person **like** the most?

1. **Does the person enjoy these activities?**

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resists</td>
<td>Tolerates</td>
<td>Actively Enjoys</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. **How often does the person participate in these activities?**

   | 0 | 1 | 2 | 3 | 4 |
   | Never | Yearly | Monthly | Weekly | Daily |

3. **Does the person have as much access to these as they would like?**

   | 1 | 2 | 3 | 4 | 5 |
   | Too little | Just Right | Too Much |

4. **What helps/hinders access?** (Interviewer note, helps (+), hinders (-) or Strike-through)

   | Cost | Availability | Convenience | Transportation |
   | Person’s behaviour | Person’s mobility | Person’s health | Other’s behaviour | Staff preference |
   | Other’s mobility | Other’s health | Staff ratio | Staff preference |
2) **Practical Opportunities** are activities that are necessary for day to day living.

- Grocery
- Pharmacy
- Other:
- Hairdresser/barber
- Clothes shopping
- Post office
- Errands
- Banking

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grocery</td>
<td>Pharmacy</td>
<td>Other:</td>
<td></td>
</tr>
<tr>
<td>shopping</td>
<td>Hairdresser/barber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothes shopping</td>
<td>Post office</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Errands</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D. Which activity does the person **do** the most?

1. Does the person enjoy these activities?
   - 0: Resists
   - 1: Tolerates
   - 2: Actively Enjoys

2. How often does the person participate in these activities?
   - 0: Never
   - 1: Yearly
   - 2: Monthly
   - 3: Weekly
   - 4: Daily

3. Does the person have as much access to these as they would like?
   - 1: Too little
   - 2: Just Right
   - 3: Too Much

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike-through)
   - Cost
   - Availability
   - Convenience
   - Transportation
   - Person’s behaviour
   - Other’s mobility
   - Person’s mobility
   - Person’s health
   - Staff ratio
   - Other’s behaviour
   - Staff preference

E. Which activity does the person **like** the most?

1. Does the person enjoy these activities?
   - 0: Resists
   - 1: Tolerates
   - 2: Actively Enjoys

2. How often does the person participate in these activities?
   - 0: Never
   - 1: Yearly
   - 2: Monthly
   - 3: Weekly
   - 4: Daily

3. Does the person have as much access to these as they would like?
   - 1: Too little
   - 2: Just Right
   - 3: Too Much

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike-through)
   - Cost
   - Availability
   - Convenience
   - Transportation
   - Person’s behaviour
   - Other’s mobility
   - Person’s mobility
   - Other’s health
   - Person’s health
   - Staff ratio
   - Other’s behaviour
   - Staff preference
3) **Dining/Entertainment**: activities in community setting that are primarily for dining/entertainment

- Night club
- Movies
- Pubs
- Dances
- Donut shop
- Fast food
- Café
- Restaurants
- Other:

<table>
<thead>
<tr>
<th>F. Which activity does the person do the most?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does the person enjoy these activities?</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>Resists</td>
</tr>
<tr>
<td>2. How often does the person participate in these activities?</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>Never</td>
</tr>
<tr>
<td>3. Does the person have as much access to these as they would like?</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>Too little</td>
</tr>
</tbody>
</table>

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike through)

- Cost
- Availability
- Convenience
- Transportation
- Person’s behaviour
- Person’s mobility
- Person’s health
- Other’s behaviour
- Other’s mobility
- Other’s health
- Staff ratio
- Staff preference

G. Which activity does the person like the most?

1. Does the person enjoy these activities?

| 0 | 1 | 2 | 3 | 4 |
| Resists | Tolerates | Actively Enjoys |

2. How often does the person participate in these activities?

| 0 | 1 | 2 | 3 | 4 |
| Never | Yearly | Monthly | Weekly | Daily |

3. Does the person have as much access to these as they would like?

| 1 | 2 | 3 | 4 | 5 |
| Too little | Just Right | Too Much |

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike through)

- Cost
- Availability
- Convenience
- Transportation
- Person’s behaviour
- Person’s mobility
- Person’s health
- Other’s behaviour
- Other’s mobility
- Other’s health
- Staff ratio
- Staff preference
4) **Visiting others**: is contact with friends and family who live apart from the person

<table>
<thead>
<tr>
<th></th>
<th>Going to a friend’s house</th>
<th>Family friend’s home</th>
<th>Immediate family’s home</th>
<th>Non-disabled Friend’s home</th>
<th>Extended family’s home</th>
<th>Home of friend with DD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

**H. Which activity does the person do the most?**

1. Does the person enjoy these activities?

<table>
<thead>
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<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Resists</td>
<td>Tolerates</td>
<td>Actively Enjoys</td>
<td></td>
</tr>
</tbody>
</table>

2. How often does the person participate in these activities?

<table>
<thead>
<tr>
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<th>4</th>
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<tr>
<td></td>
<td>Never</td>
<td>Yearly</td>
<td>Monthly</td>
<td>Weekly</td>
</tr>
</tbody>
</table>

3. Does the person have as much access to these as they would like?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
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<th>4</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Too little</td>
<td>Just Right</td>
<td></td>
<td>Too Much</td>
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4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike-through)

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<tr>
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<th>Transportation</th>
<th>Person’s behaviour</th>
<th>Other’s mobility</th>
<th>Person’s mobility</th>
<th>Other’s health</th>
<th>Person’s health</th>
<th>Staff ratio</th>
<th>Other’s behaviour</th>
<th>Staff preference</th>
</tr>
</thead>
</table>

**I. Which activity does the person like the most?**

1. Does the person enjoy these activities?

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</table>

2. How often does the person participate in these activities?

<table>
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3. Does the person have as much access to these as they would like?

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<td></td>
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</tbody>
</table>

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike-through)

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<th>Convenience</th>
<th>Transportation</th>
<th>Person’s behaviour</th>
<th>Other’s mobility</th>
<th>Person’s mobility</th>
<th>Other’s health</th>
<th>Person’s health</th>
<th>Staff ratio</th>
<th>Other’s behaviour</th>
<th>Staff preference</th>
</tr>
</thead>
</table>
6) **Passive Leisure Outside the Home**: are leisurely activities that take place outside the home.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes</th>
<th>Other:</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car rides</td>
<td>☐</td>
<td></td>
<td>☐</td>
</tr>
<tr>
<td>Bus rides</td>
<td>☐</td>
<td></td>
<td>☐</td>
</tr>
<tr>
<td>Train rides</td>
<td>☐</td>
<td></td>
<td>☐</td>
</tr>
<tr>
<td>Going to the mall</td>
<td>☐</td>
<td></td>
<td>☐</td>
</tr>
</tbody>
</table>

**A. Which activity does the person do the most?**

1. Does the person enjoy these activities?
   - Resists
   - Tolerates
   - Actively Enjoys
2. How often does the person participate in these activities?
   - Never
   - Yearly
   - Monthly
   - Weekly
   - Daily
3. Does the person have as much access to these as they would like?
   - Too little
   - Just Right
   - Too Much

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike through)
   - Cost
   - Availability
   - Convenience
   - Transportation
   - Person's behaviour
   - Other's mobility
   - Person's health
   - Staff ratio
   - Other's mobility
   - Other's health
   - Staff ratio
   - Staff preference

**B. Which activity does the person like the most?**

1. Does the person enjoy these activities?
   - Resists
   - Tolerates
   - Actively Enjoys
2. How often does the person participate in these activities?
   - Never
   - Yearly
   - Monthly
   - Weekly
   - Daily
3. Does the person have as much access to these as they would like?
   - Too little
   - Just Right
   - Too Much

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike through)
7) **Outdoor Activities**: activities that provide access to nature or outdoor recreation

<table>
<thead>
<tr>
<th>Hiking</th>
<th>Boating</th>
<th>Conservation area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beach</td>
<td>Walking</td>
<td>Other: __________</td>
</tr>
<tr>
<td>Camping</td>
<td>Biking</td>
<td>Other: __________</td>
</tr>
<tr>
<td>Fishing</td>
<td>Local park</td>
<td>Other: __________</td>
</tr>
</tbody>
</table>

C. Which activity does the person do the most? _____________

1. Does the person enjoy these activities?
   - 0: Resists
   - 1: Tolerates
   - 2: Actively Enjoys
   - 3:
   - 4: 

2. How often does the person participate in these activities?
   - 0: Never
   - 1: Yearly
   - 2: Monthly
   - 3: Weekly
   - 4: Daily

3. Does the person have as much access to these as they would like?
   - 1: Too little
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   - 3: Too Much
   - 4: 

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike through)
   - Cost
   - Availability
   - Convenience
   - Transportation
   - Person's behaviour
   - Person's mobility
   - Other's mobility
   - Other's health
   - Staff ratio
   - Staff preference

D. Which activity does the person like the most? _____________

1. Does the person enjoy these activities?
   - 0: Resists
   - 1: Tolerates
   - 2: Actively Enjoys
   - 3: 

2. How often does the person participate in these activities?
   - 0: Never
   - 1: Yearly
   - 2: Monthly
   - 3: Weekly
   - 4: Daily

3. Does the person have as much access to these as they would like?
   - 1: Too little
   - 2: Just Right
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   - 4: 

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike through)
   - Cost
   - Availability
   - Convenience
   - Transportation
   - Person's behaviour
   - Person's mobility
   - Other's mobility
   - Other's health
   - Staff ratio
   - Staff preference
8) **Sports/Recreation:** are planned/organized sporting activities that the person participates in

<table>
<thead>
<tr>
<th>Swimming</th>
<th>Skating</th>
<th>Other: ________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowling</td>
<td>Skiing</td>
<td>Other: ________</td>
</tr>
<tr>
<td>Baseball</td>
<td>Hockey</td>
<td>Other: ________</td>
</tr>
<tr>
<td>Basketball</td>
<td>Health club</td>
<td>Other: ________</td>
</tr>
<tr>
<td>Softball</td>
<td>(gym)</td>
<td>Horseback riding</td>
</tr>
</tbody>
</table>

E. Which activity does the person **do** the most?

1. Does the person enjoy these activities?

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>Resists</td>
<td>Tolerates</td>
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<td></td>
<td></td>
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</table>

2. How often does the person participate in these activities?

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<td>Never</td>
<td>Yearly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily</td>
</tr>
</tbody>
</table>

3. Does the person have as much access to these as they would like?

<table>
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<tr>
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<th>2</th>
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<tr>
<td>Other's mobility</td>
<td>Other's health</td>
<td>Staff ratio</td>
<td>Staff preference</td>
</tr>
</tbody>
</table>

F. Which activity does the person **like** the most?

1. Does the person enjoy these activities?

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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2. How often does the person participate in these activities?

<table>
<thead>
<tr>
<th>0</th>
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<td>Monthly</td>
<td>Weekly</td>
<td>Daily</td>
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</tbody>
</table>

3. Does the person have as much access to these as they would like?

<table>
<thead>
<tr>
<th>1</th>
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</tr>
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<tbody>
<tr>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Person's behaviour</td>
<td>Person's mobility</td>
<td>Person's health</td>
<td>Other's behaviour</td>
</tr>
<tr>
<td>Other's mobility</td>
<td>Other's health</td>
<td>Staff ratio</td>
<td>Staff preference</td>
</tr>
</tbody>
</table>
9) **Leisure at Home**: are leisurely activities that take place inside the home

<table>
<thead>
<tr>
<th>T.V.</th>
<th>Music</th>
<th>Board Games</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movies</td>
<td>Hanging out</td>
<td>Other</td>
</tr>
<tr>
<td>Computer</td>
<td>Other</td>
<td>Cards</td>
</tr>
<tr>
<td>Video games</td>
<td>Other</td>
<td>Cards</td>
</tr>
</tbody>
</table>

G. Which activity does the person **do** the most?

1. Does the person enjoy these activities?
   - Resists
   - Tolerates
   - Actively Enjoys

2. How often does the person participate in these activities?
   - Never
   - Yearly
   - Monthly
   - Weekly
   - Daily

3. Does the person have as much access to these as they would like?
   - Too little
   - Just Right
   - Too Much

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike through)
   - Cost
   - Availability
   - Convenience
   - Transportation
   - Person’s behaviour
   - Other’s mobility
   - Other’s health
   - Staff ratio
   - Staff preference

H. Which activity does the person **like** the most?

1. Does the person enjoy these activities?
   - Resists
   - Tolerates
   - Actively Enjoys

2. How often does the person participate in these activities?
   - Never
   - Yearly
   - Monthly
   - Weekly
   - Daily

3. Does the person have as much access to these as they would like?
   - Too little
   - Just Right
   - Too Much

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike through)
   - Cost
   - Availability
   - Convenience
   - Transportation
   - Person’s behaviour
   - Other’s mobility
   - Other’s health
   - Staff ratio
   - Staff preference
10) **Hobbies**: are activities pursued outside one’s regular occupation and engaged in primarily for pleasure and relaxation

<table>
<thead>
<tr>
<th></th>
<th>Crafts</th>
<th></th>
<th>Playing an</th>
<th></th>
<th>Other:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Collecting</td>
<td></td>
<td>Other:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Knitting</td>
<td></td>
<td>Other:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sewing</td>
<td></td>
<td>Other:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Instrument</td>
<td></td>
<td>Other:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Paint/Drawing</td>
<td></td>
<td>Other:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Scrapbooking</td>
<td></td>
<td>Other:</td>
</tr>
</tbody>
</table>

1. Which activity does the person **do** the most? __________________

1. Does the person enjoy these activities?
   - 0: Resists
   - 1: Tolerates
   - 2: Actively Enjoys

2. How often does the person participate in these activities?
   - 0: Never
   - 1: Yearly
   - 2: Monthly
   - 3: Weekly
   - 4: Daily

3. Does the person have as much access to these as they would like?
   - 1: Too little
   - 2: Just Right
   - 3: Too Much

4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike-through)
   - Cost
   - Availability
   - Convenience
   - Transportation
   - Person’s behaviour
   - Other’s mobility
   - Person’s mobility
   - Person’s health
   - Staff ratio
   - Other’s health
   - Staff preference

J. Which activity does the person **like** the most? __________________

1. Does the person enjoy these activities?
   - 0: Resists
   - 1: Tolerates
   - 2: Actively Enjoys

2. How often does the person participate in these activities?
   - 0: Never
   - 1: Yearly
   - 2: Monthly
   - 3: Weekly
   - 4: Daily

3. Does the person have as much access to these as they would like?
   - 1: Too little
   - 2: Just Right
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4. What helps/hinders access? (Interviewer note, helps (+), hinders (-) or Strike-through)
   - Cost
   - Availability
   - Convenience
   - Transportation
   - Person’s behaviour
   - Other’s mobility
   - Person’s mobility
   - Person’s health
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