Treatment Acceptability of Choice-making Interventions for Adults with Developmental Disabilities

by

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Abstract

The lives of people with developmental disabilities are often characterized by few opportunities to make choices. Increasing choice-making opportunities for people with developmental disabilities is important because research has shown that choice-making is related to both improved quality of life and reductions in challenging behaviour. Direct-care service providers who work in residential group home settings may lack the skills and/or knowledge about how to increase choice-making opportunities for the people with whom they work. Thus, consultants are often called upon to support direct-care service providers to acquire general skills and knowledge in this area, as well as to develop behavioural choice-making interventions to support group home residents.

Research has shown that many aspects of an intervention may affect the degree to which direct-care service providers perceive an intervention as acceptable. Intervention acceptability has been found to be directly related to the likelihood that an intervention will be implemented and, therefore, successful. The focus of the current study was to examine the effects of three variables on group home staffs’ acceptability ratings of treatments designed to increase choice-making behaviours in adults with developmental disabilities. The three variables were the purpose of the treatments, their potential impact on staff, and the time required to implement them.

Eighty-eight direct-care service providers from three agencies providing residential supports to adults with developmental disabilities in British Columbia participated in the study. Each participant was provided with one of eight vignettes of a group home resident and an intervention designed to increase choice-making across the resident’s day. The vignettes were assigned at random across participants. Data collection measures included a Demographic Information Sheet, the Treatment Evaluation Inventory (Kazdin, 1980a), and a Choice-Availability Sheet.
Results of a 2x2x2 analysis of variance suggested that neither intervention purpose, staff impact, nor time required significantly affected the acceptability ratings made by direct-care service providers. T-tests revealed no significant differences among a number of participant demographic variables with regard to either acceptability ratings or choice-availability ratings. Correlational analysis suggested that the acceptability ratings were related to how willing participants would be to implement the interventions described in the vignettes. Implications for consultants who support direct care staff in group homes and for future research are discussed.
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CHAPTER 1

Introduction

World-wide estimates suggest that mental retardation occurs in approximately 1-3% of the population (The Roeher Institute, personal communication, October 22, 1997). Thus, approximately 815,000 Canadians, some 74,000 of whom live in British Columbia (B.C.), are considered to be mentally retarded (B.C. Statistics, 1997; Canadian Association for Community Living, 1997). The system used to describe people with mental retardation has undergone several changes over the years. In 1977, the classification system most commonly used in North America focused on the degree of intellectual disability as measured by standardized intelligence tests (IQs) and adaptive behaviour scores (Grossman, 1977). According to this definition, individuals with IQs between 55-69 had “mild mental retardation,” those with IQs between 40-54 had “moderate mental retardation,” those with IQs between 25-39 had “severe mental retardation,” and those with IQs below 24 had “profound mental retardation.” In 1992, the American Association on Mental Retardation (AAMR) changed its definition to emphasize the level of support required by individuals with mental retardation rather than the level of their intellectual disability (Luckasson et al., 1992). Thus, the new definition emphasized the interaction between an individual’s capabilities and his or her environment (Coulter, 1996). According to the 1992 definition, people who require "intermittent" support receive occasional services as needed; people who require "limited" support receive consistent but time-limited services; people who require "extensive" support receive daily, long-term services; and people who require "pervasive" support receive 24-hour per day services that are intense and perhaps even life-sustaining. To reflect this focus on the required level of support, the AAMR reorganized and emphasized 10 adaptive skill areas in the definition of mental retardation. Therefore, mental retardation is now defined as:

"... significantly subaverage intellectual functioning, existing concurrently with related limitations in two or more of the following applicable adaptive skill areas:
communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure, and work. Mental retardation manifests before age 18” (Luckasson et al., 1992, p. 1).

Professionals from a wide range of disciplines, as well as self-advocates (individuals with mental retardation who advocate for themselves and others), were involved in developing the 1992 AAMR definition (Rood, 1994). The self advocates on the revision committee were especially in favour of the removal of the mild, moderate, severe, and profound labels, and of the new support-based model in general (Rood, 1994). They also objected to continued use of the term “mental retardation,” arguing that its negative connotations have often resulted in limited expectations and opportunities for the individuals so labeled. Although the term is still used in the AAMR definition, self-advocates in B.C. achieved a partial victory in this regard when, in 1996, the Board of Directors of the British Columbia Association for Community Living (BCACL) passed a resolution on behalf of the Self Advocacy Caucus stating that individuals with mental retardation wanted to be known as people with "developmental disabilities" (BCACL, personal communication, October 15, 1997). Therefore, developmental disabilities is the term that will be used to describe these individuals (except in the context of direct quotes) throughout this study.

Clearly, people with developmental disabilities have been described in many different ways throughout the course of history. They have also been supported in many different ways. The next section of this study provides a brief history of service provision for individuals with developmental disabilities, with emphasis on the evolution of such services in British Columbia. This history is important to an understanding of present philosophies of support.

**Historical Background**

Prior to the 1770's, the service delivery system for people with developmental disabilities was comprised of their families and communities. The industrial revolution gave rise to many social changes which affected where and how these individuals lived.
In B.C., the social changes of the industrial revolution began in the 1850's and 1860's, and the “institutional era” of caring for people with developmental disabilities soon followed. The first institution in B.C. was called the "Lunatic Asylum" and opened on May 17, 1878, with 16 residents who had developmental disabilities or mental illnesses (Mackinnon, 1996).

One of the major social changes that occurred during the industrial revolution was an increased public interest in educational and vocational preparation. Because the public education system excluded people with developmental disabilities, separate schools were created for them. Initially, segregated schools and institutions were small in size and focused on education, but they soon developed into large custodial facilities whose purpose was to protect the "idiots" from society and to protect society from the "idiots" (Halpern, Sackett, Binner, & Mohr, 1980; Willer & Intagliata, 1984). Conditions in these institutions were uniformly deplorable and appeared to make the residents' behaviour worse (Halpern et al., 1980). The Lunatic Asylum in B.C. was no exception, as revealed by the fact that "it was two full years before the toilets were cleaned for the first time and another year from that time until they were cleaned again" (Mackinnon, 1996, p.13).

In the 1920's, some began to doubt that institutions benefited either the individuals living in them or the people in society who they were supposed to protect, and began to argue for the release of residents with mild disabilities into the community. Thus, during the 1920's and 1930's, some people with mild developmental disabilities were released into community settings. In addition, adults with mild disabilities in B.C. were discharged into the community as a result of a shortage of institutional staff during World War I. Willer and Intagliata (1984) suggested that the success of this early deinstitutionalization movement was due, in part, to the selectiveness with which residents were released and the level of supervision they received in the community. However, despite the apparent early success of deinstitutionalization in B.C. and around the world, the number of
discharges into the community significantly decreased during the 1940's. The deinstitutionalization effort had stalled.

It was at the end of World War II that deinstitutionalization again began to pick up speed. Factors that facilitated renewed interest in deinstitutionalization included a generally more favourable attitude towards people with disabilities (which may have been a result of the return of disabled veterans from the war) and growing criticism of the quality of care in institutions (Wilier & Intagliata, 1984). In addition, the parents of people with developmental disabilities began to advocate for the release of their children from the dehumanizing and restrictive conditions of the institutions into the perceived dignity and liberation of community settings. For example, the Association for Retarded Children of British Columbia (ARC-BC) was formed in 1955 by a group of parents who wanted education provided for their institutionalized sons and daughters who were excluded from the public school system.

Despite these advocacy efforts, admissions to B.C.'s institutions continued during the 1950s. Woodlands (the re-named Lunatic Asylum) became increasingly overcrowded, which resulted in the opening of "Tranquille School" (Tranquille) in 1959. Unfortunately, the existence of Tranquille did not adequately reduce the crowding at Woodlands and, in a further attempt to deal with the problem, staff who worked in the institutions began to emphasize the use of community programs and facilities. In this, staff joined with parent advocacy groups to apply increased pressure to access community services. The result was that, in the 1960's, there was both an increase in community involvement and an increase in facilities and services at the institutions. Over the span of about a decade, it became obvious that Woodlands and Tranquille could not meet the need for services for adults with developmental disabilities and, as a result, Glendale Lodge (Glendale) opened as B.C.'s third institution in 1971.

Glendale was different from Woodlands and Tranquille in several ways, although it was still a large segregated facility. Designers planned the buildings so that they would
not look "institutional," the facility's philosophy was that Glendale was a home not a hospital, and, for the first time in B.C., a non-profit organization assumed administrative responsibility for such a facility. The differences between Glendale and the other two B.C. institutions were a reflection of new, continent-wide attitudes surrounding the care of people with developmental disabilities. These attitudes were largely due to the adoption of Wolfensberger's principle of "normalization," which he defined as the "use of culturally normative means to offer persons life conditions at least as good as that of average citizens, and . . . as much as possible, [to] enhance or support their behavior, appearances, experiences, status, and reputation" (Wolfensberger, 1980, p. 8).

In addition to the popularity of normalization principles and ideals, a number of additional factors contributed to changes in the lifestyles of people with developmental disabilities in the 1970's. In B.C., these factors included the allotment of massive amounts of money to upgrade Woodlands and Tranquille, growing criticism of the hospital model of care provided by institutions, and staff-initiated informal deinstitutionalization. Between 1970 and 1975, many people moved from B.C. institutions into the community and, in 1977, the B.C. government announced Project: L.I.F.E (Living Independently for Equality), which was the first "official" governmental step in downsizing B.C.'s three major institutions.

Provincial government support for deinstitutionalization continued to grow over the next several years. On November 23, 1981, the provincial government declared its intention to close all three B.C. institutions and to place all residents, regardless of the level of support they required, into community living arrangements. Thus, B.C. became the first jurisdiction in Canada to make such a commitment (Mackinnon, 1996). Tranquille was closed first, in January, 1985; Glendale, in March, 1996; and Woodlands, in December, 1996. With the closing of Woodlands, a chapter in the history of service provision for children and adults with developmental disabilities came to a close, and the service delivery system came "full circle" (Mackinnon, 1996). In other words, the service
delivery system had arrived back at the model with which it began: people with
developmental disabilities being cared for by their families and in their communities.

In preparing for and proceeding through deinstitutionalization in B.C., all of the parties involved agreed that a focus on the “quality of life” of individuals with developmental disabilities should be of paramount importance. The question then became: how is “quality of life” best defined and operationalized? The next section examines this issue.

Quality of Life

Numerous researchers have examined the impact of deinstitutionalization on the quality of life of individuals with developmental disabilities. A study by Hemming, Lavender, and Pill (1981) typifies this research. They assessed the quality of life of institutional residents both before and after they moved to small living units in the community. They found increases in the frequency and quality of staff-resident interactions, residents’ involvement in domestic activities, and residents’ adaptive behaviours after their transfer to the smaller living units (Hemming et al., 1981). In a review of research of the changes in adaptive behaviour associated with moving from institutions to smaller community living settings, Larson and Lakin (1989) reported that 100% of experimental/contrast group studies and 50% of longitudinal studies have also reported statistically significant improvements in overall adaptive behaviour, self-help/domestic skills, or both.

Deinstitutionalization research has also examined quality of life issues beyond those reflected in solitary measures such as adaptive behaviour scores (Lord & Pedlar, 1991). A broader perspective has emerged as a result of the endeavor to ask questions about the quality of life of individuals’ lives in community settings (Landesman, 1986, Schalock, Keith, Hoffman, & Karan, 1989). In fact, Schalock et al. (1989) predicted that quality of life (QOL) “... may replace deinstitutionalization, normalization, and community adjustment as the issue of the 1990s” (p. 25). This prediction has been borne
out as researchers have developed many approaches in their attempts to define and measure QOL (Rosen, Simon, & McKinsey, 1995).

QOL definitions can be broken down into three major categories (Jamieson, Schmidt, & Britton, 1993). The first category approaches QOL in terms of the subjective feelings of the individuals of concern. For example, Taylor and Bogdan (1990) defined quality of life as "one's satisfaction with one's lot in life, an inner sense of contentment or fulfillment with one's experience in the world" (p. 34). This type of definition is supported by the argument that subjective experiences are the ultimate measure of QOL (Goode as cited in Rosen et al., 1995). According to this type of definition, a person with a high QOL would feel positively about his or her life.

A second type of QOL definition centres around the degree of discrepancy between a person's achieved and his or her unmet needs and desires (Brown, Bayer, & MacFarlane, 1988). For example, Goode (1990) emphasized the "goodness of fit" between two sets of variables. The first is the fit between a person's perception of his or her needs and the environmental/social resources available to meet those needs. The second is the fit between personal capabilities and environmental demands. A person with a high QOL would have few discrepancies between his or her achieved and unmet needs and between his or her capabilities and the environmental demands (Brown et al., 1988).

The third type of QOL definition focuses on the relationship between autonomy and QOL. Keith (1990) noted that a sense of autonomy, empowerment, and independence is the foundation for an improved QOL. Similarly, a B.C. government publication proposed three essential elements of QOL: (a) self-determination, (b) mutual recognition, and (c) equality (Rioux & Hay, 1993). Of these, self-determination, or "the attitudes and abilities required to act as the primary causal agent in one's life and to make choices regarding one's actions free from undue external influence or interference" (Wehmeyer, 1992, p. 305), has received the most attention in the literature. In fact, some have argued that every definition of QOL implies, expresses, or emphasizes self-determination and
choice-making in some form (e.g., Stark & Goldsbury, 1990). Because choice-making appears to be such an essential component of QOL, it is a core construct in the proposed research, as discussed in the following section.

**Choice-Making**

**Theoretical background.** One of the reasons for focusing on choice-making in the proposed research is its predominance in the research literature. Researchers examining choice-making in adults with developmental disabilities have conducted studies that fall into two general groups. Some researchers have emphasized the relationship between choice and QOL and have shown that, in general, the lives of adults with developmental disabilities are characterized by few opportunities to make choices, regardless of where they live (Bannerman, Sheldon, Sherman, & Harchik, 1990; Kishi, Teelucksingh, Zollers, Park-Lee, & Meyer, 1988). The second group of studies has focused on the relationship between the ability to make choices and behaviour problems and, in general, has demonstrated an inverse relationship between the two (Bambara, Koger, Katzer, & Davenport, 1995). Overall, it appears that, when people with developmental disabilities are encouraged and supported to make the number and types of choices typically made by their peers without disabilities, their lives are both happier (QOL) and more adaptive (i.e., they have fewer behaviour problems) than when others make such choices for them.

**Professional background.** I am also interested in the topic of choice-making because of my personal experiences in this regard. I am employed by a small private company that operates group homes for adults with developmental disabilities. Most of the group homes operated by this company follow the typical four-bed housing model, in which four adults live together in a home located in a regular neighborhood. The adults are supported by paid staff 24 hours per day, and are encouraged to participate in a lifestyle that reflects societal norms. To meet this goal, they usually leave the house in the morning to attend a day program that focuses on task completion, life-skills development, and/or vocational training. Upon returning home from "work," they participate (to the best
of their ability) in a variety of homemaking tasks that are related to the smooth operation of the home; these include, for example, meal preparation, cleaning tasks, and so forth. Residents also participate in group and individual leisure activities.

Unfortunately, the day-to-day lives of the residents in the group home where I work are characterized by few opportunities to make choices. For example, staff members usually decide what the residents will eat for dinner and what they will do during their leisure time. I have been surprised by both the dearth of choice-making opportunities in the lives of the residents of this group home and by the ease with which I myself acquired the habit of making choices for them. This pattern is exacerbated by the fact that the residents are often unable to make choices even when asked to do so, perhaps because of their lack of practice in this area. These factors have contributed to my interest in learning how to facilitate choice-making in adults with developmental disabilities by examining the factors that contribute to intervention efficacy in this regard.

Consultation

As mentioned previously, all of the institutions for people with developmental disabilities in B.C. are now closed, and the former residents have moved into community settings. The closure of the institutions also resulted in the dispersion of staff; experts who used to work under one roof are now employed in many different places. Thus, people who work with adults with developmental disabilities no longer have access to support "just down the hall." One of the side effects of the dispersion of the institutions' residents and staff into the community has been the development of a number of community-based professional services (Jamieson, Schmidt, Boecker, & Kitzmann, 1994).

In B.C., professional services are provided, either directly or indirectly, by both governmental and nongovernmental organizations. In general, professional service providers share three main characteristics: (a) they provide services to adults with developmental disabilities residing in the community, (b) they constitute a secondary or
tertiary layer of service, in addition to the primary service provided through an individual’s residential service provider, and (c) they are directed either to individuals or individuals’ support networks (Jamieson et al., 1994). Examples of such professional services include those related to health care (e.g., medical, dental, and nursing services); counseling for issues such as grief or sexuality; physiotherapy; respite care; and intensive adult care programs. Intensive adult care programs within B.C.’s mental health consultation network, and include (a) time-limited, intensive community-based residential and day services for adults with developmental disabilities who have severe behavioural challenges or high medical needs, and (b) time-limited, intensive supports to residential caregivers to prevent placement breakdown (Jamieson et al., 1994).

The “time-limited, intensive” aspect of both types of intensive adult care services reflects the fact that they are delivered, in large part, by mental health consultants. Mental health consultation is defined as “a part of a community program for the promotion of mental health and for the prevention, treatment, and rehabilitation of mental disorders” (Caplan & Caplan, 1993, p.12). Mental health consultation can be delivered through four primary models: (a) client-centred case consultation, (b) consultee-centred case consultation, (c) program-centred administrative consultation, and (d) consultee-centred administrative consultation (Caplan & Caplan, 1993). The consultee is the person or organization who approaches the consultant for support whereas the client is the target person of the consultation process (e.g., an adult with developmental disabilities).

The present study focuses on intensive adult care services that support individuals with developmental disabilities through client-centred case consultation. Within this model, a consultant assists consultees (such as the group home staff who actually implement the intervention) to deal with current problems related to a specific client, and also teaches them how to deal more effectively with similar problems in the future. This can be achieved in one of two ways. In a consultant-as-expert model, the consultant conducts an assessment of the client and makes recommendations to the consultee about
related interventions, while taking no responsibility for the outcome (Caplan & Caplan, 1993). In a consultant-as-collaborator model, the consultant and the consultee jointly design the intervention and share responsibility for the outcome (Caplan & Caplan, 1993). Pryzwansky (1974) noted that the consultant-as-collaborator model is more likely to be used when the consultant works for the same organization as the consultee because this collegial relationship promotes increased expectations of consultant accountability. Evaluation of which of these two consultation models is most effective or most preferred goes beyond the scope of this study. However, the consultant-as-expert model will be the focus of this study, since most mental health consultation services in B.C. for people with developmental disabilities are delivered through this model (Jamieson et al., 1994).

**Treatment Acceptability**

The consultation process is extremely complex, and there are many potential barriers to its effective application. Kratochwill and Van Someren (1985) noted the following potential barriers with regard to consultation in general: (a) the fact that the consultation process is not standardized, (b) a potential lack of consultant training in skills related to the efficacy of consultation, (c) a lack of consultee knowledge about assessment and treatment, (d) the fact that identifying target behaviours for treatment is often difficult, (e) problems with the interpersonal aspects of the consultant/consultee relationship, and (f) consultee disagreement about the acceptability of a recommended intervention. It is the last barrier in the list that is relevant to this study.

The acceptability of an intervention\(^1\) is affected by several characteristics, including (a) the type of intervention (Kazdin, 1980a, b), (b) the severity of the problem (Kazdin, 1980a), and (c) the complexity of the treatment (Elliott, Witt, Galvin, & Peterson, 1984). Developing interventions that consultees view as acceptable is important because acceptable procedures and techniques are more likely to be implemented and efficacious (Kratochwill & Van Someren, 1985). As noted by Witt and Elliott (1985), potentially

\(^1\)The term 'intervention' and 'treatment' will be used interchangeably in this study.
effective but unacceptable treatments may not be implemented and, as a result, do not benefit anyone. Therefore, there may be an important relationship between the acceptability of interventions recommended by consultants and the achievement of effective, successful consultation outcomes (Miltenberger, Lennox, & Erfanian, 1988).

Summary and Purpose of this Study

In summary, many adults with developmental disabilities who once lived in institutions now live in community settings. Almost without exception, research examining the impact of community living on these individuals has demonstrated positive effects on the quality of their lives (e.g. Edgerton & Bercovici, 1976; Hemming et al., 1981). However, as Edgerton (1993) noted, “these former patients have achieved a measure of success in their return to the outside world ...[but]... few characterizations of the form of their lives in this outside world are wholly satisfactory” (p. 130).

One important area of quality of life is the ability to engage in making choices. Although it is widely accepted that adults with developmental disabilities ought to have the same opportunities to make choices as do their peers without disabilities, those who support these adults in community settings often need support to learn how to facilitate this outcome. In B.C., mental health consultation is commonly used to provide such support to staff in group homes, using a consultant-as-expert model. The success of consultation is affected by numerous variables, one of which is the acceptability of a treatment or intervention to the person/people who are responsible for implementing it. Identifying how specific treatment variables affect consultees’ ratings of acceptability is important because designing acceptable treatments is a crucial step in achieving successful outcomes. The specific research focus of the current study is the variables that affect group home staff acceptability ratings of treatments designed to increase choice-making behaviours in adults with developmental disabilities.
CHAPTER 2

Review of the Literature

The focus of this study is the acceptability of consultant-designed interventions to increase choice-making behaviours in people with developmental disabilities. Therefore, this review of the literature will examine the bodies of research that pertain to choice-making behaviours in adults with developmental disabilities, consultation, and treatment acceptability. The research that explores choice-making behaviours in people with developmental disabilities is quite extensive and broad in scope, and will be presented in summary form. Although there is very little extant research regarding the use of consultation in community living settings, I will summarize a survey that shows that consultation is regularly used by service providers for adults with developmental disabilities in B.C.. I will also review three studies that focus on consultation as used by service providers for people with developmental disabilities. Researchers exploring treatment acceptability have focused their attention primarily on children in educational settings, but there is a small body of literature that explores treatment acceptability of interventions aimed at people with developmental disabilities. This body of research will be examined in detail after summarizing the larger base from which it was drawn.

Choice Research with People with Developmental Disabilities

The opportunity and ability to make choices is a cherished and important part of the everyday lives of most people (Guess, Benson, & Siegel-Causey, 1985). In fact, at least one legal conceptualization of personal liberty suggests that people should be able to choose from many options and should be free from coercion when making choices (Bannerman et al., 1990). The concept of choice is similar, though not identical, to the concept of preference. Houghton, Bronicki, and Guess (1987) defined this relationship as follows: “Choice ... [is] the act of selecting between . . . two or more options. The selected option is perceived as the most preferred option . . . [because preference is]
expressing a like or dislike” (p. 20). Thus, choice-making requires active participation while preference is a more passive construct.

Interest in choice-making as it relates to people with developmental disabilities has developed over the past two decades. Until the late 1970’s, little attention was given to choice-making because residential service providers usually controlled most aspects of these individuals’ lives, including their daily schedules, access to preferred activities, and the goals of any intervention programs in which they were involved (Bannerman et al., 1990; Guess et al., 1985; Newton, Horner, & Lund, 1991). However, one of the major impacts of the principle of normalization (Wolfensberger, 1980) was that the goal of service delivery shifted from insuring residents’ compliance to fostering residents’ independence and self-reliance (Wehman & McLaughlin as cited in Shevin & Klein, 1984). The ability to make choices became increasingly recognized as essential to independence and self-reliance, and this recognition led to the development of instructional approaches designed to identify preferences and teach people to make responsible choices (Bannerman et al., 1990; Guess et al., 1985; Kishi et al., 1988; Shevin & Klein, 1984).

This is not to imply that people with developmental disabilities no longer experience restrictions related to choice-making. In fact, despite the prominent position that choice-making has in society, there continues to be evidence that people with developmental disabilities have significantly fewer opportunities to make choices than do adults without developmental disabilities. This is particularly true in areas of major life impact, such as where and with whom to live, where and with whom to spend leisure time, and so forth. In many places, administrators and direct care staff who provide support to these individuals continue to make decisions and exert control over most aspects of their lives (Houghton et al., 1987; Kishi et al., 1988; Stancliffe, 1995; Wehmeyer, & Metzler, 1995).

Numerous barriers contribute to limitations in both the quantity and quality of the choices available to adults with developmental disabilities. One such barrier stems from
the fact that some people with developmental disabilities may not understand the concept of choice-making and/or may not know how to make responsible choices or indicate their preferences (Thompson, 1981). These two factors can easily develop into a cyclical pattern that is difficult to break, in that people who are perceived to be unable to make choices are usually provided with few opportunities to do so, and this lack of practice, in turn, makes it less likely that their choice-making ability will improve over time. In addition, this perceived incompetence may lead to negative self-perceptions as well as lowered expectations in others (Carle as cited in Jenkinson, Copeland, Drivas, Scoon, & Yap, 1992). Other barriers to choice-making for people with developmental disabilities that are relevant to the proposed research include the amount of staff time required to support choice-making and the degree to which staff are committed to empowering rather than controlling individuals' lives in general (Mirenda, 1996).

Recently, two reviews of the research pertaining to choice-making in people with developmental disabilities have appeared in the literature. Fisher and Mazur (1997) categorized the studies they reviewed along a continuum of basic, “bridge,” and applied research, depending on the primary goal. The goal of basic research studies of choice-making is to interpret the variables that determine how individuals choose between available options. The goal of what Fisher and Mazur termed “bridge” studies is to determine the extent to which the variables that affect responding on choice-making tasks in laboratory environments operate similarly in more naturalistic environments. Finally, the goal of applied studies is to employ the principles derived from basic and bridge investigations to teach people to make choices in real world settings. Most of the studies reviewed in this chapter are either bridge or applied studies.

In a related review of choice-making behaviours in people with developmental disabilities, Lancioni, O'Reilly, and Emerson (1996) also focused on bridge and applied research. They identified three categories of research: (a) studies that assess the ability of participants to choose between two options and express preferences, (b) studies that
increase the number of choice opportunities in participants' daily lives, and (c) studies that evaluate the possible effects of choice-making on participants' performance and behaviour. The remainder of this section of the literature review will follow the structure set out by Lancioni et al. (1996).

Assessing Participants' Ability to Make Choices

Researchers have examined the ability of people with developmental disabilities to express preferences and/or make choices with regard to, for example, food or drink items (e.g., Parsons & Reid, 1990; Sigafoos, Laurie, & Pennell, 1995), sensory stimulation options (e.g., Nozaki & Mochizuki, 1995), and vocational task options (e.g., Mithaug & Mar, 1980). Overall, the results have indicated that virtually all individuals with developmental disabilities are able to express preferences in areas that are important to them, but that some require instruction in order to engage in accurate choice-making.

Sigafoos et al. (1995) conducted two prototypical experiments in this regard. In the first experiment, they assessed choice-making among seven girls diagnosed with Rett Syndrome whose adaptive behaviour scores were more than one standard deviation below the mean when compared to other children with severe disabilities. Despite the severity of their disabilities, the girls were all able to indicate their choice of one food or leisure item from a two-item set, albeit inconsistently. In the second experiment, Sigafoos et al. (1995) analyzed the function of the girls' no-choice responses and found varying results. Some participants' lack of response clearly indicated their refusal of both items in the two-item set, while the intent of other participants' lack of response remained unclear. These variable findings support the observation that some people with developmental disabilities may require instruction and/or practice before they are able to engage in consistent choice-making behaviours.

As noted previously, some individuals with developmental disabilities may have opportunities to make basic choices about, for example, what to eat or what to do in their leisure time, but are not provided with opportunities to make choices in areas that affect
their lives in more substantive ways (Kishi et al., 1988). However, a study by Faw, Davis, and Peck (1996) demonstrated that at least some of these individuals can learn to make choices in areas that are quite significant. The authors designed an intervention whose goal was to teach people with mild developmental disabilities and mental illness (i.e., dual diagnoses) to decide whether or not prospective group homes would be good places to live. The participants identified 30 characteristics of a group home that were important to them and then narrowed their selections to the 10 most important characteristics by choosing between pairs of the initial 30. Researchers then taught the participants (a) to ask prospective group home managers questions about their top 10 preferences, (b) to ask for clarification as needed, (c) to report their answers in notebooks they carried to the interviews, and (d) to decide for themselves whether or not each prospective group home was a place they wanted to live. The results indicated that the percentage of correct steps in the decision-making process increased from a mean of 22% to a mean of 99.6% as a result of the instructional sessions. This study illustrates clearly that, when provided with appropriate instructional supports, people with developmental disabilities can learn to engage in choice-making behaviours that significantly affect their lives.

Increasing Opportunities for Choice-Making

The recent recognition of the importance of choice-making for people with developmental disabilities has led to the painfully obvious observation that one of the major reasons many of these individuals are unable to make choices is because they are rarely given opportunities to do so (Bannerman et al., 1990). Several studies have documented that caregivers (a) tend to provide few opportunities for the people with developmental disabilities they support to express preferences and/or make choices, and (b) respond at very low rates when their clients do express preferences or choices (e.g., Houghton et al., 1987; Sigafoos, Roberts, Kerr, Couzens, & Baglioni, 1994). For example, Sigafoos et al. (1994) examined the frequency and types of opportunities for
communication provided by teachers of children with developmental disabilities in special education classrooms and found that, across all observation intervals, only 14% contained opportunities for communication in general and only 4% involved opportunities specific to choice-making. Similarly, Houghton et al. (1987) examined the responses of classroom staff to the expressions of choice and preference made by students with multiple disabilities and found that staff responded to only 11% of the students’ attempts to communicate, on average. Although these studies involved caregivers of children in educational settings, similar research conducted in community living settings also suggests that staff members provide few opportunities for their clients to make choices (e.g., Parsons & Reid, 1990; Reid & Parsons, 1991; Sigafoos, Roberts, Couzens, & Kerr, 1993).

As a result of studies such as these, some researchers have focused on various methods for teaching direct care personnel (e.g., teachers, group home staff) to provide more frequent opportunities for choice-making in the lives of the individuals they support. For example, Parsons and Reid (1990) conducted two experiments designed to examine (a) staff attitudes related to the importance of providing choices to adults with developmental disabilities and (b) the potential usefulness of an intervention designed to assess choice-making skills and provide more choice-making opportunities. The results of the first experiment indicated that, although the overwhelming majority of staff believed that making choices about food and drink items (the focus of the study) was important, over 80% reported that their clients had fewer opportunities to make such choices than did most adults without disabilities. The results of the second experiment indicated that all of the clients with developmental disabilities involved in the study were able to demonstrate preferences for at least one food or drink item during a structured assessment conducted by the researchers. Following systematic instruction, staff members were also able to implement the preference assessment procedures during mealtimes (Parsons & Reid, 1990; Reid & Parsons, 1991). From this study, it appears that teaching staff to assess client
preferences is one method that can be used to both discover client preferences and assist them to participate more actively in mealtimes (Parsons & Reid, 1990).

Sigafoos et al. (1993) used another method for teaching the caregivers of young adults with developmental disabilities to provide increased opportunities for choice-making. They provided inservice training and consultation to teach caregivers a systematic procedure for offering food item choices to the young adults under their care. In general, the results demonstrated that the number of choice opportunities provided by the caregivers increased after the training, as did the number of choices made by the young adults. Studies such as these suggest the importance of teaching service providers to offer more opportunities for choice-making to the people with developmental disabilities they support. Two of the major reasons for doing so are related to the positive impact of choice-making on both performance and challenging behaviour, as discussed in the section that follows.

**Effects of Choice-making on Task Performance and Behaviour**

Extensive research has been conducted to determine the effects of choice-making on both the task performance and the behaviour of people with developmental disabilities. The review of research in this area will begin with studies that focus on the former.

**Task performance.** Historically, one of the primary reasons people with developmental disabilities had few opportunities to make choices was service providers’ fear that choice-making and task performance on designated program goals could not co-occur. Many service providers reasoned that, if these individuals were “allowed” to choose among the vocational, daily living, or other tasks they were being taught, they might make choices that would adversely affect their learning. However, Bannerman et al. (1990) observed that program goals and the right to choose need not be in conflict. They argued that, although extra time and instruction may be required to help individuals with developmental disabilities learn to make choices related to program goals, a resulting increase in client satisfaction could lead to an increased desire to participate in learning activities related to those goals.
Numerous research findings support Bannerman et al.'s (1990) argument. When individuals with developmental disabilities are given opportunities to make choices or are provided with access to preferred activities or items, the frequency of behaviours such as responding, participation, and on-task behaviour increases (e.g., Bambara et al., 1995; Dattilo & Rusch, 1985; Parsons, Reid, Reynolds, & Bumgarner, 1990; Realon, Favell, & Lowerre, 1990). For example, Dattilo and Rusch (1985) examined the effect of choice on the frequency of responding and participation of children with severe disabilities in a leisure activity. In the choice condition, participants activated a microswitch to turn on a video player, while in the no-choice condition activating the microswitch produced no such consequence. The results demonstrated that the participants activated the switch more frequently in the choice condition than in the no-choice condition. The authors noted that the participants appeared to realize that they had no control over the video player in the no-choice condition, and thus lost interest in the activity and participated less frequently.

As noted previously, researchers have also examined the effects of providing access to preferred activities or items on task performance. Lerman et al. (1997) observed that much of the past research examining the effects of choice and preference on task performance has failed to control for participant preference in no-choice conditions (i.e., researchers have not ensured that no-choice conditions produce access to the same items available in choice conditions). Lerman et al. noted that such experimental control is important in order to assess accurately the conditions under which choice making does and does not affect performance. In response to their own challenge, Lerman et al. conducted preference assessments with three participants with developmental disabilities in order to identify five preferred food and/or leisure items. They then assessed the effects of using the preferred items as reinforcement for participation in vocational tasks such as stamping a date on a paper. They reinforced participants in two different conditions: (a) a choice condition, in which participants were allowed to choose one of two options randomly selected from the pool of five preferred items and (b) a no-choice condition, in which
participants were presented with single preferred items from the five item pool. Thus, the study was designed to assess the effects of participant choice independent of participant preference, since the reinforcement items in the choice and no-choice sessions were from the same pool. The results indicated that the rate of task performance did not differ across the two conditions, which suggests that providing access to preferred activities is as important as providing choice when attempting to increase task performance in adults with developmental disabilities.

The results of the research discussed in this section challenge the position that a persons' right to choose and the achievement of learning goals are mutually exclusive. It appears that, if service providers want to facilitate increased task performance in people with developmental disabilities, they should provide them with either access to preferred activities or opportunities to make choices among activities (or both). Similar positive effects of choice-making have been demonstrated with regard to interventions for challenging behaviour.

Challenging behaviour. Historically, service providers have exerted a great deal of control over the lives of people with developmental disabilities who engage in challenging behaviour (i.e., behaviour problems) in attempts to decrease the frequency and/or duration of those behaviours. For example, service providers have chosen the procedures used to modify behaviours they see as needing to be changed and have controlled access to preferred activities or items as an incentive for good behaviour (Bannerman et al., 1990). In direct opposition to such control-based interventions, a large body of research suggests that, when people who exhibit challenging behaviours are provided with opportunities to make choices and/or access preferred activities, the frequency of their challenging behaviours decreases and/or the frequency of their adaptive behaviours increase (e.g., Bambara et al., 1995; Dunlap et al., 1994; Dyer, 1987; Dyer, Dunlap, & Winterling, 1990; Foster-Johnson, Ferro, & Dunlap, 1994; Kearney, Durand, & Mindell, 1995; Koegel,
A recent study by Bambara et al. (1995) is illustrative of this type of study. The authors provided individualized choice opportunities within the daily routines of a man with severe developmental disabilities and examined the effects of such opportunities on both his participation in activities and his challenging behaviours. The behaviours of concern consisted of screaming and property destruction, which occurred primarily when staff members asked the participant (Al) to take part in household chores. The researchers examined the contexts in which the problem behaviours occurred and identified a direct relationship between staff demands and the frequency of Al’s challenging behaviours. They then created four conditions (two imperative conditions and two choice conditions): (a) a direct imperatives condition, in which staff asked Al to engage in household activities using direct commands (e.g., “Al, you need to vacuum the rug now”), (b) an indirect imperatives condition, in which staff phrased requests as questions rather than commands (e.g., “Al, do you want some help to vacuum the rug now?”), (c) a choice condition, in which staff offered Al choices either between two tasks or between two steps within a task (e.g., “Al, do you want to vacuum the rug now or help unload the dishwasher?” or “Al, do you want to take out the dishes or the cutlery first?”) and (d) a conditional choice condition, in which staff modified direct imperatives by adding a phrase to offer Al control over whether or when to initiate a task (e.g., “Al, do you want to vacuum the rug now or after dinner?”). The results clearly and dramatically demonstrated that, in both of the choice conditions, Al’s task initiations were more frequent than in the two imperative conditions. More importantly, his challenging behaviours were eliminated in the two choice conditions but persisted at a frequency similar to baseline in the imperative conditions. This study exemplifies the positive effects of choice-making on challenging behaviour that has been demonstrated repeatedly in the empirical literature.
In summary, people with a range of developmental disabilities have the ability to make choices. Research clearly shows that, when they are provided with appropriate instruction, these individuals can learn to make both simple choices (e.g., among food or drink items or leisure activities) and choices that have major impact on their lifestyles (e.g., where to live). Service providers can learn to increase the frequency of opportunities for choice-making behaviours, which, in turn, is related to both increases in task performance (i.e., adaptive behaviours) and decreases in challenging behaviours. Each of these findings point to the potential for supporting people with developmental disabilities in their quest to live more independent, satisfying lives.

As noted previously, service providers often need instruction to increase choice-making opportunities for the people they support. Reasons behind the need for instruction include a potential need to overcome (a) service providers’ beliefs that the people they support lack the communication skills and/or the initiative to make choices, (b) service providers’ fears that the people they support may make inappropriate choices or may reject all options offered, (c) service providers’ sense of responsibility to implement goals and objectives and to follow a rigid schedule which leaves little room for individual choice (Brown as cited in Brown, Belz, Corsi, & Wenig, 1993), and (d) service providers’ lack of familiarity with strategies for teaching choice-making skills (Gothelf, Crimmins, Mercer, & Finocchiaro as cited in Brown et al., 1993). In addition to these concerns, it can be argued that one of the central reasons service providers may be reluctant to provide choice-making opportunities for the people they support has to do with issues of power and control. Guess and Siegel-Causey (1985) referred to service providers as “controllers” and the people they care for as the “controlled” (p. 232). They argued that when service providers give choice-making opportunities to the people they support, it follows that the service providers themselves have less control over the situation and fewer choice-making opportunities. For example, if a service provider gives a group home resident the opportunity to choose what to eat for dinner (i.e., the menu) the
service provider’s control of the dinner menu is limited in that he or she cannot choose what to cook and must adapt his or her plans to accommodate the resident’s choice. Because people place high value on personal control and choice-making, the service provider may perceive it to be both uncomfortable and “un-natural” to create a situation that would, in effect, limit his or her own control and choice-making options. Therefore, providing choice-making opportunities for people with developmental disabilities significantly impacts service providers in a way that may be difficult for these individuals to overcome.

It appears that there are several obstacles to overcome in teaching service providers to increase choice-making opportunities for the people they support. Such instruction is often provided by consultants with expertise in psychology, mental health, or education. The next section of the literature review will describe consultation as it is used by service providers for people with developmental disabilities in B.C., followed by a review of three studies that focus on the actual consultation process as utilized by caregivers for these individuals.

Consultation Research

When people with developmental disabilities resided primarily in institutions, all professional services were readily available to them on site. As the institutions began to close and the residents began to move into their communities, how and where professional services were delivered to them also changed. Thus, in B.C., all individuals with developmental disabilities now live in community settings and access community-based professional services that are primarily delivered by itinerant consultants rather than by on-site direct care staff.

There is a paucity of research about the use of consultation services in community living settings, perhaps because the development of this mode of service delivery for adults with developmental disabilities is a relatively new phenomenon. In this section, I
will discuss the use of consultative services in B.C. in particular, and review the extant research base in this area.

Consultative Services in B.C.

People with developmental disabilities who live in B.C. communities access both generic services (i.e., services that are available to the general population) and specialized services (i.e., services designed specifically for this population). Generic services include those related to health, rehabilitation, and counseling, among others. Specialized services include nutrition services specifically designed for individuals with disabilities, as well as a variety of behavioural support services (Jamieson et al., 1994).

In the early 1990s, the Ministry of Social Services (now called the Ministry for Children and Families) conducted a survey to gather information about the community-based programs offering professional services to adults with developmental disabilities in the province (Jamieson et al., 1994). Researchers first identified the social workers and service co-ordinators who provided case management to 589 adults who formerly lived in institutions in B.C. The informants were provided with a list of 25 professional services in the province and were asked to specify whether the individuals they supported had used those services within the past five years. The results indicated that all 25 services had been used, with medical specialists and trained staff in the home used most often (54% and 45%, respectively). Forty-two percent of the adults represented in the survey exhibited behaviour problems that required professional support of some kind, including consultative services provided in the community by mental health teams (19%), professional support teams (28%), and/or psychiatrists/psychologists (26%) (Jamieson et al., 1994).

From these figures, it seems clear that consultative services related to behaviour support for adults with developmental disabilities were used frequently within B.C. at the time of the survey (i.e., 1994). With the closure of Woodlands in 1996, the number of adults with developmental disabilities living in the community increased substantially;
thus, the current need for consultation services by this population is likely to be even
greater than that reported by Jamieson et al. (1994).

The Consultation Process

Although an evaluation of the various models of consultation is beyond the scope
of this paper, it is important to describe the general consultative processes that are used
most often. Bergan (1977) described a four-stage process in this regard. The first stage,
problem identification, involves a series of steps designed to specify the problem or issue
of concern. The second stage, problem analysis, is comprised of steps for analyzing the
factors that might influence successful outcomes, and for developing plans to solve the
problem of concern. Plan implementation, the third stage, involves both preparing for
implementation and actually putting the plan into action. Finally, the fourth stage, problem
evaluation, is undertaken to determine whether or not the goals of consultation are attained
and whether or not the treatment has been effective.

Consultation Research

The vast majority of research on the consultation process has been conducted in
educational rather than community living settings (e.g., Galloway, & Sheridan, 1994;
Happe, 1982; Ponti, Zins, & Gradan, 1988; Pryzwansky, 1974). However, a few studies
have examined the efficacy of consultation models applied to adults with developmental
disabilities (Donnellan, LaVigna, Zambito, & Thvedt, 1985; Durand & Kishi, 1987;
Malette et al., 1992). Perhaps the most extensive description of a consultative model was
provided by Malette et al. (1992), who described the “Lifestyle Development Process”
(LDP), which is designed to provide support to people with developmental disabilities and
challenging behaviour and to improve the quality of their lives. Malette et al. (1992)
described the process as it was applied to two children and two adults who were referred
for consultative services because of challenging behaviours. These individuals received
services from a consultation team that included a speech-language pathologist (adult clients
only), a behaviour consultant, an instructional consultant (adult clients only), and two
education consultants (child clients only). The LDP involved five steps that were completed over the course of approximately two years. In the first step, consultants assisted family members, friends, service providers, and others to describe their vision of a quality life for the target individual. Written inventories, field observations, interviews, and videotape analyzes were used to gather baseline information about each participants’ preferences, activity patterns, daily and weekly schedules, communication and behavioural skills, medication history, learning strengths and weaknesses, and other relevant factors. Consultants also compared the target individual’s current daily and weekly schedules to those of a typical, nondisabled peer and documented the discrepancies as baseline information. The second step involved an assessment of potential barriers to participation in relevant community settings and implementation of a variety of strategies to remediate the barriers. Step three of the LDP process was comprised of tasks designed to identify the strengths, capacities, and preferences of the target individual in order to assemble meaningful routines and schedules. The result of this step was the creation of daily and weekly schedules that included goals and objectives related to where and with whom the person would live, work, go to school, and spend leisure time. In step four of the process, consultants assessed the communicative function of the challenging behaviours, taught alternative methods of communicating to the participants, and used systematic instructional strategies to teach additional, relevant skills. Finally, the last step of the LDP process involved an evaluation of the effectiveness of the intervention and development of a long-term monitoring system.

Obviously, the LDP is a time-consuming, complicated consultation model that involves many people; however, the outcomes reported by Malette et al. (1992) were extremely encouraging. For example, all four individuals participated in a greater number of preferred, integrated activities after the LDP process was completed, with an activity gain of more than 200% for three of the four participants. The frequency of challenging behaviour for all four participants was also substantially reduced after the LDP process.
was completed. These findings suggest that the LDP is a process that consultants can use to improve both the QOL and the level of adaptive behaviour of people with developmental disabilities.

An earlier study also utilized consultation to support service providers’ attempts to reduce challenging behaviours in adults with developmental disabilities (Donnellan et al., 1989). Although the specific consultative process used in this study differed from that of Malette et al. (1992), the general structure was similar. Donnellan et al. (1989) reported that, for 15 of the 16 participants, implementation of behavioural interventions by consultants and then by consultees (including parents, family members, caretakers, and teachers) resulted in substantial decreases in the frequency of the behaviour problems of concern. Similarly, Durand and Kishi (1987) used consultation to support caregivers’ attempts to reduce the challenging behaviours of five individuals with dual sensory impairments (i.e., both deafness and blindness). When consultees implemented the individualized interventions, there was an immediate reduction in the challenging behaviours of three of the five participants. Particularly relevant to the issue of treatment acceptability was the fact that the recommended intervention had little effect on reducing the levels of challenging behaviours of two of the participants. When the authors examined why the intervention was ineffective, they discovered that the consultees had not followed the intervention procedures because they were not logistically feasible. After a follow-up visit by the consultants, the issues preventing consultee implementation were resolved for the staff supporting one participant, whose behaviour then began to improve. This clearly illustrates the importance of consultee participation to ensure a successful consultation outcome.

To summarize, the provision of consultative services related to both increased QOL and reduction of behaviour problems has been documented in the literature, and is used extensively to support adults with developmental disabilities in B.C.. Given the widespread use of consultative services, information about how to maximize their
effectiveness is both relevant and important. In the next section, I will examine the literature related to effective consultation as it pertains to treatment acceptability.

**Treatment Acceptability Research**

**Definitions and Relevance**

Practitioners and researchers in the field of applied behaviour analysis have always used objective measures such as frequency and duration counts as criteria for evaluating the effectiveness of interventions used to treat behaviour problems (Kazdin, 1980a; Witt & Elliott, 1985). However, in the late 1970s, researchers began to argue that because some aspects of behaviour analysis are subjective, additional, broader criteria are also needed for treatment evaluation. For example, Wolf (1978) suggested that the assessment of treatment effectiveness should involve both objective outcome measures and subjective judgments about: (a) the social significance of the goals of intervention (i.e., are the changes really what society wants?), (b) the social appropriateness of the intervention procedures (i.e., are the procedures acceptable?), and (c) the social importance of the effects of the intervention (i.e., did the intervention really make a difference in the person’s life?). Together, these three judgment categories constitute the concept of “social validity” (Kazdin, 1977; Wolf, 1978).

Wolf’s second area, that of the social appropriateness (i.e., the acceptability) of intervention procedures, is most closely related to this study. In large part, the social acceptability of intervention procedures has to do with

"the judgments about the treatment procedures by nonprofessionals, lay persons, clients, and other potential consumers of treatment. Judgments of acceptability are likely to embrace evaluation of whether treatment is appropriate for the problem; whether treatment is fair, reasonable, and intrusive; and whether treatment meets with conventional notions about what treatment should be (Kazdin, 1980a, p. 259)."

In a more detailed exploration of treatment acceptability, Lennox and Miltenberger (1990) listed four factors that constitute the concept. The first factor, **efficacy considerations**, is related to the selection of the most effective treatment which, in turn, requires assessment of the motivational variables that are functionally related to the target
behaviour. Identifying the variables that maintain the target behaviour is extremely important in order to design or select an intervention that is likely to be effective. The second factor, *secondary effects*, involves the exploration of any unintended, deleterious effects of a treatment. Lennox and Miltenberger encouraged practitioners to monitor and document treatment side effects and to be aware of the potential for abuse during intervention. The third factor, *social and legal implications*, includes consideration of (a) treatment restrictiveness or intrusiveness, (b) treatment precedence (i.e., the extent to which the effectiveness of the procedure has been documented previously), (c) social acceptability, and (d) regulatory factors such as legislative and agency policies. The final factor constituting treatment acceptability involves *practical considerations* such as (a) the level of staff competence, (b) the level of staff cooperation, (c) treatment efficiency, and (d) the cost effectiveness of the treatment. Lennox and Miltenberger argued that these four factors are hierarchically ordered, and suggested that the first category (efficacy considerations) is the most important.

**Measurement of Treatment Acceptability**

Researchers have examined treatment acceptability across diverse populations, including elementary students (e.g., Allinder & Oates, 1997); the elderly (e.g., Lundervold & Young, 1993); sex offenders (Lundervold and Young, 1992); and people with developmental disabilities (e.g., Tarnowski, Rasnake, Mulick, & Kelly, 1989). However, only a few researchers have employed naturalistic research designs (e.g., Allinder & Oates, 1997; Shapiro & Goldberg, 1990; Walle, Hobbs, & Caldwell, 1984). The vast majority of treatment acceptability studies have utilized analogue research designs, in which participants are asked to either listen to or read (a) a written case description of an individual exhibiting a problem behaviour and (b) a treatment applied to the behaviour. Participants then complete a rating scale that measures various aspects of treatment acceptability. The most commonly used acceptability rating scales are Kazdin's
Treatment Evaluation Inventory (TEI). The TEI measures treatment acceptability by assessing, for example, the extent to which participants would endorse a treatment for broad application, believe it to be unfair or cruel, and consider it to be consistent with commonly held notions of appropriateness (Miltenberger, 1990; Witt & Elliott, 1985). Kazdin subjected the responses of 60 pilot students on the TEI to a principal components factor analysis (Harman as cited in Kazdin, 1980a) and found that 15 of the 16 items loaded highly on the single principal component of acceptability (Miltenberger, 1990). The item that was unrelated to acceptability asked whether a treatment was manipulative and coercive; subsequently, this item was dropped from the instrument (Kazdin, 1980). Examples of TEI items include “How willing would you be to carry out this procedure yourself if you had to change the child’s problems?” and “How much do you like the procedures used in this treatment?” (Witt & Elliott, 1985).

Intervention Rating Profile (IRP). The IRP was developed to evaluate raters’ perceptions of the acceptability of classroom interventions, and includes items related to the appropriateness of an intervention for a given problem and the appropriateness of the time required for an intervention (Reimers, Wacker, & Koeppl, 1987; Witt & Elliott, 1985). The results of a factor analysis indicated that the IRP was composed of one primary factor (general acceptability) and four secondary factors (risk, time, effects of other children, and teacher skill) (Miltenberger, 1990). Sample IRP items include “Overall, the intervention would be beneficial for the child” and “This intervention would not be disruptive to other students” (Witt & Martens, 1983).

Researchers examining the acceptability of treatments aimed at adults with developmental disabilities have used both the TEI and the IRP. However, there are at least two factors that support use of the TEI over the IRP in the current study. First, Witt and Martens (1983) developed the IRP to assess teachers’ ratings of the acceptability of
classroom interventions, whereas Kazdin (1980a) developed the TEI to reflect a persons' overall evaluation of a treatment. Consequently, researchers have used the TEI to evaluate the acceptability of behavioural treatments in general (e.g., Kazdin, 1981) while researchers have used the IRP primarily to assess school-based interventions (e.g., Elliott et al., 1984). Second, the TEI is the most widely used measure of treatment acceptability (Kelley, Heffer, Gresham, & Elliott, 1989). For these two reasons I chose to measure direct-care service providers' acceptability ratings using the TEI. This will be discussed further in Chapter 3.

Factors Affecting Treatment Acceptability

Using instruments such as the TEI or the IRP, researchers have assessed the extent to which various factors affect treatment acceptability (Miltenberger, 1990). In Reimers et al.'s (1987) review of the acceptability of behavioural interventions, the authors listed several solitary factors that have been shown to affect acceptability: (a) problem severity, (b) type of treatment approach, (c) treatment complexity, (d) side effects of treatment; and (e) amount of time required for treatment implementation. These factors' effects on treatment acceptability are summarized in Table 1.
Table 1

Solitary Variables Affecting Treatment Acceptability

<table>
<thead>
<tr>
<th>More acceptable</th>
<th>Less acceptable</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatments applied to severe problem behaviours</td>
<td>Treatments applied to moderate problem behaviours.</td>
<td>Frentz &amp; Kelly, 1986;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kazdin, 1980a;</td>
</tr>
<tr>
<td>Positive treatments aimed at increasing adaptive</td>
<td>Treatments aimed at decreasing maladaptive behaviours (reductive treatments) such as time-out, withdrawal of attention, isolation, time-out, shock, or medication</td>
<td>Elliott, Witt et al., 1984; Fairbanks &amp; Stennet, 1997; Kazdin, 1980a/b; Witt, Elliott, &amp; Martens, 1984; Elliott, &amp; Martens, 1984; Elliott, &amp; Martens, 1984; Witt &amp; Martens, 1983</td>
</tr>
<tr>
<td>behaviours, such as reinforcement of other behaviours or praise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simple treatments</td>
<td>Complex treatments</td>
<td>Elliott et al., 1984</td>
</tr>
<tr>
<td>Treatments with weak side-effects</td>
<td>Treatments with strong, adverse side-effects</td>
<td>Kazdin, 1981</td>
</tr>
<tr>
<td>Treatments requiring little time involvement</td>
<td>Treatments requiring a great deal of time involvement</td>
<td>Witt, Elliott et al., 1984; Witt, Martens, &amp; Elliott, 1984; Witt &amp; Martens, 1983</td>
</tr>
</tbody>
</table>
Researchers have examined the individual effects of the variables in the above table on treatment acceptability. In a more complex conceptualization of treatment acceptability, Kazdin (1980a) hypothesized the relationship between treatment acceptability and treatment effectiveness to be hierarchical, such that an ineffective treatment would also be considered unacceptable. This hypothesis was borne out by several studies (e.g., Kirigin, Braukmann, Atwater, & Wolf, 1983; Von Brock & Elliott, 1987), but in a study designed specifically to examine Kazdin’s hypothesis, the two variables appeared to be unrelated (Kazdin, 1981). This result may be due to the fact that the treatments described in the study (reinforcement, time out from reinforcement, positive practice of the correct behaviours, and medication) had a narrow range of effectiveness (Witt & Elliott, 1985). The fact that researchers are not yet clear about the effects of certain factors on ratings of treatment acceptability provides one rationale for conducting the current study.

Models of Treatment Acceptability

Two interactive models have been proposed to explain the complex interaction between treatment acceptability and treatment effectiveness. The model that is most well-known was proposed by Witt & Elliott (1985). In this model, treatment acceptability is viewed as part of a cycle that involves treatment use, treatment integrity, and treatment effectiveness. Each successive component in the cycle both affects and is affected by each subsequent component, as shown in Figure 1. Research studies that appear to support this model include those by Kazdin (1984), Reimers and Wacker (1988), and Von Brock and Elliott (1987).
Allinder and Oates (1997) conducted a research study that appears to support Witt and Elliott’s (1985) model. They tested the hypotheses that treatment acceptability influences teachers’ use of a formative evaluation system (i.e., use of treatment) and that treatment acceptability influences the amount of gain measured in the performance of their students (i.e., effectiveness of treatment). The researchers trained participants in curriculum-based measurement (CBM) techniques for teaching mathematics and supported them as consultants during a four month implementation period. At the conclusion of the implementation phase, teachers rated the acceptability of CBM. The researchers then placed the teachers into two groups according to their acceptability ratings: a group whose acceptability ratings were high and a group whose acceptability ratings were low. Two findings from Allinder and Oates (1997) provide support for Witt and Elliott’s (1985) model: (a) teachers who rated CBM as highly acceptable used two of five implementation techniques more frequently (i.e., they implemented CBM with greater integrity) than did teachers who rated CBM as low in terms of acceptability and (b) students of the teachers who rated CBM as being highly acceptable achieved higher math performance scores (i.e., the intervention was more effective) than did students of teachers who rated CBM as low in acceptability.
Reimers et al. (1987) proposed an alternative model for treatment acceptability that begins with the level of understanding of the consultee. If a treatment is not well understood, consultees will implement the treatment with low compliance which is assumed to lead to low effectiveness. Good understanding is assumed to lead to high or low acceptability. If the treatment is not acceptable, consultees will exhibit low compliance and the treatment will not be effective. When a treatment is acceptable, the next step in the model is high compliance followed by low or high effectiveness. Researchers have examined the relationship between consultee understanding of a treatment and acceptability ratings and found that increasing consultee understanding of the treatment and/or providing information about the treatment is related to increased acceptability ratings (Singh & Katz, 1985; Reimers & Wacker, 1988; Von Brock & Elliott, 1987). An adapted version of Reimers et al.'s model (1987) is depicted in Figure 2.
Research examining the relationship between consultee understanding of a treatment and acceptability ratings has found that increased consultee understanding (by providing information about the treatment, for example) is related to increased acceptability ratings (Singh & Katz, 1985; Reimers & Wacker, 1988; Von Brock & Elliott, 1987). Thus, in Reimer’s model, consultee understanding affects acceptability, which in turn affects implementation compliance and, ultimately, treatment effectiveness.

Interaction Effects

Much of the research on the effects of multiple factors on treatment acceptability has found that various factors interact in different ways at different levels. For example, as noted in Table 1, treatments requiring little time involvement are generally rated as more acceptable than treatments requiring a great deal of time (Witt, Elliott et al., 1984; Witt, Martens et al., 1984; Witt & Martens, 1983). However, treatments requiring little time
involvement are rated as more acceptable when applied to moderately severe behaviour problems than when applied to severe behaviour problems in classrooms (Witt, Elliott et al., 1984; Witt, Martens et al., 1984). Witt, Moe et al. (1984) suggested that this might be because teachers feel that interventions requiring little of their time lack the sufficient strength to be effective. Similarly, Witt, Martens et al. (1984) found interaction effects between type of treatment and time involvement, such that positive interventions were rated as most acceptable for low levels of teacher time, reductive treatments were rated as most acceptable for medium levels of teacher time, and positive and reductive interventions were rated as equally acceptable for high levels of teacher time involvement. The authors proposed that these findings confirm the maxim that “the punishment (and the time involved in delivering the punishment) should fit the crime.” Researchers have also found interaction effects between type of treatment and severity of behaviour problems; reductive treatments are rated as most acceptable when applied to severe behaviour problems and positive treatments are most acceptable when applied to moderate behaviour problems (Tarnowski, Rasnake, Mulick, & Kelly, 1989). This finding may reflect raters’ feelings that positive interventions lack the strength to be effective with severe behaviour problems. Overall, these interaction effects reveal the complexity of treatment acceptability and provide a rationale for examining the effects of multiple factors in the current study.

**Participant Influence**

Finally, it appears that the participants involved in a treatment acceptability study may affect the findings, regardless of the characteristic(s) being examined. For example, when preservice or student teachers were the participants (i.e., raters), a relationship was identified between type of treatment and acceptability, such that positive interventions were rated as more acceptable than reductive interventions (Witt, Elliott et al., 1984). However, when experienced teachers participated in a similar study, no relationship between type of intervention and acceptability ratings was identified (Witt, Martens et al., 1984).
The fact that different participants view treatment characteristics as having different effects on treatment acceptability provides an additional rationale for conducting this study. Direct-care staff working in group homes are quite a different population than the teachers or undergraduate students who have been the primary participants in treatment acceptability studies. Thus, there is no reason to assume that they will view the influence of various treatment characteristics on treatment acceptability in the same way as the afore-mentioned groups. In addition, this study will be one of the few to extend this research to adults with developmental disabilities living in community settings. Previous research examining treatment acceptability has focused on interventions applied primarily to children without developmental disabilities, or to individuals with developmental disabilities living in institutions. The latter small body of research will be summarized in the next section.

**Treatment Acceptability Research and People with Developmental Disabilities**

Researchers exploring the acceptability of interventions aimed at people with developmental disabilities have structured their studies in ways that are quite similar to the treatment acceptability studies reviewed previously. Specifically, the research methodology is primarily analog in nature, with experimenters examining the treatment acceptability ratings of a variety of participants, including parents of people with developmental disabilities, the individuals actually experiencing a treatment themselves, and direct service providers. In general, the major findings of this small body of research also reflect the larger body of research on which it is based.

**Type of intervention.** Although researchers have assessed the acceptability of up to 12 interventions for people with developmental disabilities in one study (Spreat, Lipinski, Dickerson, Nass, & Dorsey, 1989), most researchers have examined between two and six interventions at a time. The following are the most common interventions researchers have examined using the TEI or the IRP;
• differential reinforcement of incompatible behaviour (DRI) (Tarnowski, Mulick, & Rasnake, 1990; Tarnowski et al., 1989; Singh, Watson, & Winton, 1987; \(^2\))
• differential reinforcement of other behaviour (DRO) (Lindeman, Miltenberger, & Lennox, 1992; Miltenberger et al., 1989; Miltenberger, Suda, Lennox, & Lindeman, 1991; Tarnowski et al., 1989, 1990)\(^3\).
• time-out (Lindeman et al., 1992; Miltenberger et al., 1989; Miltenberger et al., 1991; Singh et al., 1987).
• medication (Lindeman et al., 1992; Singh et al., 1987).
• electric shock (Lindeman et al., 1992; Miltenberger, 1989; Tarnowski et al., 1989, 1990).
• stimulus control (Tarnowski et al., 1989, 1990)\(^4\).
• mechanical/physical restraint (Tarnowski et al., 1989, 1990).

**Major findings.** Several studies have found that participants generally rate DRO or DRI interventions as the most acceptable (Lindeman et al., 1992; Miltenberger et al., 1989; Singh et al., 1987; Tarnowski, Mulick, & Rasnake, 1990). However, at least two studies suggest that this finding is not as simple as it might seem. Miltenberger et al. (1989, 1991) found that the acceptability of DRO changes as a function of the severity of a challenging behaviour. In these two studies, participants rated DRO as more acceptable when applied to a *mild* challenging behaviour but less acceptable when applied to a *severe* challenging behaviour. Conversely, Tarnowski et al. (1989) found that stimulus control

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\(^2\)Differential reinforcement of incompatible behaviours involves "the selective reinforcement of behaviour that are topographically different from the target behaviour" (Donnellan, LaVigna, Negri-Shoults, & Fassbender, 1988, p. 95).

\(^3\)Differential reinforcement of other behaviours involves "reinforcement for not engaging in the target behaviour for a specified interval of time, regardless of what other responses occur or do not occur during this period" (Donnellan, et al., 1988, p. 71).

\(^4\)Stimulus control is "the discriminative control of behaviour" such that it is permitted in some environments but not in others (Donnellan, et al., 1988, p. 108).
procedures were rated as more acceptable than either DRO or DRI, which were ranked second and third, respectively.

A second general finding is that participants rate medication and electric shock interventions as the least acceptable treatments (Lindeman et al., 1992; Miltenberger, 1989; Singh et al., 1987; Tarnowski, Mulick, & Rasnake, 1990; Tarnowski, Rasnake, Mulick, & Kelly, 1989). However, as was the case for more acceptable treatments, several findings add to the complexity of this finding. For example, electric shock was rated as more acceptable for a severe challenging behaviour than for a mild challenging behaviour (Miltenberger, 1989). In a comparison of several reactive treatments, Lindeman et al. (1992) found that participants rated medication as more acceptable than either overcorrection or electric shock. These results suggest that the severity of challenging behaviour and the range of available options both affect participants’ perceptions of treatment acceptability.

Participants. Other findings of interest are related to the participants who rated the interventions. First, Miltenberger et al. (1991) asked individuals with developmental disabilities to rate the acceptability of both DRO and time-out interventions. Individuals who lived in community settings rated DRO as more acceptable than time-out for a mild behaviour problem, while individuals who lived in a large institution rated time-out as more acceptable than DRO for a severe behaviour problem. The authors speculated that the difference in findings may be a consequence of varying treatment experiences and placements. Second, in attempting to compare the acceptability ratings of treatments given by institutional or community-based staff, Miltenberger et al. (1989) found that institutional staff appeared to prefer restrictive treatments relative to their community-based peers. The authors argued that this difference may reflect differences in the resources available in both types of settings (such as time-out rooms) as well as differences in staff experience with regard to the severity of behaviour problems in the respective environments. Finally, Tarnowski et al. (1990) replicated a study assessing institutional
staff's acceptability ratings (Tarnowski et al., 1989), but modified the methodology by including participants from an institution that had a behavioural treatment philosophy. When Tarnowski et al. (1990) compared the findings between the two studies, they found that staff from the behaviourally oriented facility rated DRO, physical restraint, and electric shock as significantly more acceptable and stimulus control as significantly less acceptable than did staff from other types of facilities. Tarnowski et al. (1990) speculated that these differences may be related participants' prior experience and training.

While several studies have found that treatment acceptability varies as function of behaviour severity and the background experiences of the raters, most participants across varying groups have rated DRO or DRI interventions as the most acceptable treatment options and electric shock or medication as the least acceptable treatment options. In summary, although several different participant groups have been involved in treatment acceptability research for individuals with developmental disabilities, findings follow similar patterns.

Naturalistic Treatment Acceptability Research

As noted previously, the vast majority of treatment acceptability studies have used analogue research designs that require participants to read or listen to a case description of an individual and a treatment of some type. Several researchers have called for more naturalistic studies in which actual interventions are examined in terms of their acceptability (e.g., Kutsick et al., 1991; Miltenberger et al., 1991). However, this call has been largely ignored to date. For example, in 1997, Fairbanks and Stinnet conducted a treatment acceptability study in which they only briefly mentioned the limitations of their analogue design. In this section, I will review the small body of naturalistic treatment acceptability studies, most of which have been conducted in classrooms.

Methodology. Most of the treatment acceptability studies incorporating a naturalistic research design have utilized multiple probes for acceptability ratings (including the study conducted by Allinder and Oates (1997) previously described). For example,
Martens, Kelly, and Diskin (1996) asked participants for acceptability ratings of an intervention both before and after implementing it; and Walle, Hobbs, and Caldwell (1984) had participants rate the acceptability of an intervention after each treatment phase. Walle et al.'s (1984) study involved mothers whose children were highly noncompliant. The researchers collected baseline data on the frequency of noncompliance and then implemented three treatment phases; the mothers completed the TEI after each phase. In the first phase, researchers trained participants in one of three treatments: (a) a time-out procedure following child noncompliance, (b) an attention-providing procedure following child compliance, or (c) time-out for noncompliance plus attention for compliance. In the second treatment phase, participants trained in the use of time-out were trained to use attention, participants trained in the use of attention were trained to use time-out, and participants trained in the use of time-out plus attention continued to use both procedures. In the third phase, all participants used time-out plus attention. Results revealed that the maternal acceptability ratings remained stable across phases and, for all three procedures, exceeded the highest TEI scores reported in Kazdin’s (1980a/b, 1981) original analogue studies. The authors speculated that the latter result may have occurred because the procedures were measured in vivo and the mothers were able to observe their effectiveness. This suggests that the acceptability scores obtained in analogue studies may be conservative estimates of the actual acceptability of an intervention when it is implemented.

In contrast to the stable treatment acceptability ratings found by Walle et al. (1984) there is also evidence that participant acceptability ratings may decrease after treatment implementation occurs. For example, Turco and Elliott (1990) examined the acceptability and effectiveness of group contingencies for improving the spelling achievement of fifth grade students. Prior to being placed into one of two spelling study groups, participants rated the acceptability of an interdependent study group contingency (in which the average group score had to exceed a pre-set criterion in order for the group to obtain a reward) and
a dependent study group contingency (in which a single group member’s score was drawn at random and the group obtained a reward if that score was above criterion). Results showed that the interdependent contingency was rated as more acceptable than the dependent contingency, but that the acceptability of both interventions decreased over time. The authors also noted that, across both conditions, many participants dropped out of the study, suggesting that they found both interventions to be at least somewhat unacceptable once they had experienced them.

In a related study, Shapiro and Goldberg (1990) found that acceptability ratings increased as a result of treatment implementation. They also examined the effects of group contingencies on spelling performance and, in addition, focused on the effects of group size. Entire classrooms of students were randomly assigned to one of two treatment groups (interdependent or dependent group contingencies), and then individual students were assigned to large or small subgroups within each class. In this case, the acceptability ratings provided by students during the intervention were higher than those given prior to implementation. The authors speculated that this might have been related to the students’ sense of mastery of the spelling tasks; however, they found no correlation between acceptability ratings and spelling performance scores.

Finally, Martens, Kelly, and Diskin (1996) examined teachers’ acceptability ratings before and after actual use of a classroom intervention related to two sequential-request strategies. The researchers asked participants to respond to questionnaires and then randomly assigned them to one of three conditions: (a) a condition in which they were asked to comply with a small initial request before being asked to implement the intervention, (b) a condition in which they were asked to comply with a large initial request before being asked to implement the intervention, and (c) a condition in which they were asked to implement the intervention without any prior request. The teachers rated the acceptability of the treatment to which they were assigned and were then provided with a packet of the materials they needed to implement the intervention and to rate its
acceptability after implementation. Results showed that pre- and post-implementation acceptability ratings did not vary significantly across the three experimental conditions. Further, the post-implementation acceptability ratings were predicted by the pre-implementation ratings.

In summary, very few naturalistic treatment acceptability studies have been reported in the literature; those that do exist have all employed multiple acceptability rating probes (i.e., pre- and post-implementation). From these studies, the relationship between pre- and post-implementation ratings is not clear, since this relationship has varied widely. For example, Turco and Elliott (1990) and Shapiro and Goldberg (1990) both examined the effects of two types of spelling group contingencies on treatment acceptability, but their results were discrepant: the former found that acceptability ratings decreased after exposure to the interventions, while the latter found that ratings increased after exposure.

It is also not clear how the effectiveness of an intervention is related to acceptability ratings. For example, Walle et al. (1990) suggested that the high post-implementation acceptability ratings provided by mothers of noncompliant children reflected the effectiveness of the procedures used, but Shapiro and Goldberg (1990) found that post-implementation ratings of spelling intervention increased even when students’ spelling performance did not improve (i.e., even when the intervention was not effective). It appears that, while naturalistic treatment acceptability studies may have higher ecological face validity than analogue studies, they have not yet provided a clear picture of the variables that affect treatment acceptability.

Summary of the Literature

As mentioned previously, the focus of this study is the acceptability of consultant-designed interventions to increase choice-making behaviours in adults with developmental disabilities. Researchers examining choice-making behaviours in these individuals have found that adults with developmental disabilities have limited opportunities to make choices (e.g., Kishi et al., 1988). Research also shows that when provided with
appropriate instructional supports, adults with developmental disabilities can make choices that range in complexity from choosing between two food items to selecting a place to live (e.g., Sigafoos et al., 1995; Faw et al., 1996). Another important finding in the choice-making literature is that service providers can learn to increase choice-making opportunities for these individuals (e.g., Sigafoos et al., 1993). This final point is significant because providing access to preferred activities or opportunities to make choices is related to increased task performance and decreased challenging behaviour (e.g., Bambara et al., 1995; Lerman et al., 1997).

Sigafoos et al. (1993) used consultation to teach service providers how to increase choice-making opportunities for the people they support. In B.C., service providers who support individuals in community settings (e.g., group homes) frequently use consultation services related to behavioural support (Jamieson et al., 1994). Researchers examining the consultation process have found that in general, it can have positive effects on the lives of the target individuals (e.g., Malette et al., 1992) and that consultee participation is essential to ensure a successful consultation outcome (Durand & Kishi, 1987).

A central factor in consultee participation is their feelings about the acceptability of the intervention (i.e., treatment acceptability). Researchers have examined the effects of many factors on treatment acceptability and have found that treatment acceptability is positively related to (a) severe problem behaviours (e.g., Kazdin, 1980a), (b) positive interventions (Witt, Elliott, et al. 1984), (c) simple interventions (Elliott et al., 1984), and (d) little time involvement. Most treatment acceptability research has employed an analogue design, which may limit the ecological validity of the results. The small body of naturalistic studies has not provided clear evidence of the relationship between pre- and post-implementation acceptability ratings. Based on the literature reviewed in this chapter and on personal interest, the general purpose of the current study is to examine three variables' effects on group home staff acceptability ratings of treatments designed to
increase choice-making behaviours in adults with developmental disabilities. The next section will list the specific research questions and hypotheses for the current study.

Research Questions and Hypotheses

1. What is the effect of different intervention purpose (increasing QOL vs. decreasing Challenging Behaviour) on the acceptability ratings of an intervention/program designed to increase choice-making?

   • Hypothesis: An intervention/program whose purpose is to increase a resident’s QOL will be rated as significantly less acceptable on the adapted TEI than will an intervention/program whose purpose is to decrease a resident’s challenging behaviour.

2. What is the effect of different levels of staff impact (High vs. Low) on the acceptability ratings of an intervention/program designed to increase choice-making?

   • Hypothesis: An intervention/program which involves a High level of staff impact (i.e., the resident will choose (a) what to eat for dinner (menu), (b) which staff member will assist him with his morning and evening routine, and (c) whether to take a bath or take a shower during his evening routine) will be rated as significantly less acceptable on the adapted TEI than will an intervention/program which involves a Low level of staff impact (i.e., the resident will choose (a) which TV show to watch in the evening, (b) what to do with his free time in the house, and (c) what clothes to wear when getting dressed in the morning.

3. What is the effect of different amounts of time required (High vs. Low) of group home staff on the acceptability ratings of an intervention/program designed to increase choice-making?

   • Hypothesis: An intervention/program that requires High amounts of staff time (i.e., staff gathers materials and it takes 60 minutes a day to carry out) will be rated as significantly less acceptable on the adapted TEI than will an
intervention/program that requires Low amounts of staff time (i.e., consultant
gathers materials and it takes less than 10 minutes a day to carry out).

4. Is there an interaction effect between the intervention purpose and time required of
group home staff on the acceptability ratings of an intervention/program designed to
increase choice-making?

- **Hypothesis:** An intervention/program that requires High amounts of staff time
  and whose purpose is to increase a resident’s QOL will be rated as significantly
  *less* acceptable on the adapted TEI than will an intervention/program that
  requires High amounts of staff time and whose purpose is to decrease a
  resident’s challenging behaviour.

In addition to these questions, I will ask three exploratory research questions focusing on
interaction effects that involve the variable staff impact. These latter questions are
exploratory because although previous authors (e.g., Bannerman et al., 1990) have
alluded to the fact that service providers are affected when choice-making opportunities are
provided to people with developmental disabilities, the exact impact of this variable has not
been examined experimentally. I will test for interaction effects related to staff impact due
to my strong interest in this factor as well as the likelihood that this variable affects
treatment acceptability ratings. However, because these questions are exploratory, I
cannot make specific hypotheses.

5. Is there an interaction effect between the intervention purpose and staff impact on the
acceptability ratings of an intervention/program designed to increase choice-making?

6. Is there an interaction effect between time required of group home staff and staff
impact on the acceptability ratings of an intervention/program designed to increase
choice-making?

7. Is there an intervention effect between intervention purpose, time required of group
home staff, and staff impact on the acceptability ratings of an intervention/program
designed to increase choice-making?
CHAPTER 3

Method

Participants

Eighty-eight direct-care staff workers from group homes for adults with developmental disabilities participated in this study. Participants were recruited from group homes that provide residential services to adults with developmental disabilities operated by the Mainstream Society for Integrated Community Living, Western Human Resource, and Delta Community Living Society. In order to be included in the study, individuals must have currently been direct-care providers; group home managers and administrators were excluded because they do not spend the same amount of time with residents as do direct-care staff and are not as involved in the implementation of treatment interventions.

Setting

The study was conducted in the group homes where participants work, during regularly scheduled staff meetings. Data collection sessions were scheduled in advance though the manager of each home.

Measurement

Participant demographics. I gathered information regarding each participant’s age, sex, job position held within the home, level of experience with adults with developmental disabilities (in months), level of education, and previous consultation experience. Table 2 presents the demographic information collected.
Table 2

Proposed Participant Demographic Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>no levels; state Age</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>Position Held</td>
<td>Keyworker</td>
</tr>
<tr>
<td></td>
<td>Permanent full-time</td>
</tr>
<tr>
<td></td>
<td>Permanent part-time</td>
</tr>
<tr>
<td></td>
<td>On-call</td>
</tr>
<tr>
<td>Experience (mo.)</td>
<td>0-12</td>
</tr>
<tr>
<td></td>
<td>13-36</td>
</tr>
<tr>
<td></td>
<td>37-60</td>
</tr>
<tr>
<td></td>
<td>61+</td>
</tr>
<tr>
<td>Education</td>
<td>High school not completed</td>
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<tr>
<td></td>
<td>High school graduate</td>
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<tr>
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<td>1-3 years post-secondary</td>
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<td>University degree</td>
</tr>
<tr>
<td></td>
<td>Graduate degree</td>
</tr>
<tr>
<td>Previous Consultation</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Experience</td>
<td></td>
</tr>
</tbody>
</table>

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Group home demographics. Along with the demographic information from each participant, I also collected data from each group home manager regarding the number of clients within the home, the level of support required by clients, and the number of staff employed in the group home. I also asked group home managers to rate the availability of the six choices contained in the vignettes to the residents in their group homes.

Treatment Evaluation Inventory (TEI). To develop the TEI, Kazdin (1980a) generated 45 items that appeared to be related to treatment acceptability and then selected 16 of these items for the instrument because they were particularly relevant to the use of punishment with children. He then subjected 60 college students' individual item responses to factor analysis and found that 15 of the 16 items produced high loadings on the single principal component of acceptability, which accounted for 51.4% of the variance (Miltenberger, 1990). Subsequent research by Kazdin and others has shown that the TEI easily differentiates between both punishment-based and positive treatments by degree of acceptability (e.g., Kazdin, 1980a/b, 1981, 1984, Kazdin et al., 1981). However, researchers have not assessed the reliability of the TEI. The items on the TEI reflect a person's overall evaluation of an intervention including such factors as (a) whether the intervention would be recommended for other people, (b) whether there are undue risks in administering the treatment, and (c) whether the person completing the questionnaire would be willing to administer the treatment (Witt & Elliott, 1985). Participants answer each item on a seven-point Likert scale for a maximum acceptability score of 105 (Miltenberger, 1990).

For use in the current study, I made minor wording modifications to make the instrument applicable to adults with developmental disabilities (Lindeman et al., 1992; Miltenberger et al., 1989). Table 3 shows two examples of how items were reworded. The modified TEI is in Appendix E (pg. 103).
Table 3
Adaptation of the TEI to Reflect Community Living Settings

<table>
<thead>
<tr>
<th>TEI Items (Witt &amp; Martens, 1985)</th>
<th>Adapted items</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Would it be acceptable to apply this procedure to institutionalized children, the mentally retarded, or other individuals who are not given an opportunity to choose treatment for themselves?</td>
<td>6. Would it be acceptable to apply this intervention/program to individuals who are not given an opportunity to choose for themselves?</td>
</tr>
<tr>
<td>8. To what extent does this procedure treat the child humanely?</td>
<td>8. To what extent does this intervention/program treat the resident humanely?</td>
</tr>
</tbody>
</table>

I was also interested in assessing the current availability of choices in the group home and the probability that the described intervention/program would be implemented in actual group homes. Therefore, I asked participants to rate how frequently the six choices contained in the vignettes are actually offered to the residents in their group homes, as well as how likely they would be to implement the intervention/program described. This form is in Appendix F (pg. 105).

Design

Power Analysis. I examined Miltenberger et al.'s (1989) study for components necessary to conduct the power analysis for the current study (e.g., the standard deviation of the TEI scores and the relative differences in TEI scores between type of intervention and severity of problem behaviour). Investigating the relative differences in TEI scores revealed that there was approximately a 10-point difference between types of interventions and approximately a 10-point difference between interventions applied to a mild problem behaviour and a severe problem behaviour (absolute TEI scores from Miltenberger appear
to range from 10-80). Therefore, I decided that a 10-point difference in relative TEI scores would be statistically important to detect. The approximate standard deviation of the TEI scores in Miltenberger et al. (1989) is 16.5. Applying these pieces of information to the set of operating curves for alpha = 0.05 allows one to find out the power of a test for a specified sample size. I examined sample size, power, and Type II error and decided on a power of .80 for the current study. The sample size required for this level of power is 88 and therefore this is the number of participants I enlisted to participate in the current study.

Research design. The study was conducted as a 2x2x2 factorial design with three independent variables and two levels of each: Intervention Purpose (Quality of Life vs. Behaviour Change), Time Required (Short vs. Long), and Impact on Staff (High vs. Low). Vignettes describing a fictitious adult with a developmental disability who lives in a group home were created to combine all possible combination of these variables, for a total of 8 possible vignettes. My rationale for choosing these three variables is discussed in the sections that follow.

Intervention Purpose. The variable Intervention Purpose (IP) refers to the reason for implementing the choicemaking intervention described in the vignettes. As I discussed in Chapter 2, the extant literature provides two primary rationales for increasing choicemaking skills in adults with developmental disabilities: (1) increased choices are related to increased QOL, and (2) teaching individuals to make choices can be a viable intervention for decreasing specific problem behaviours. These two rationales are reflected in the two levels of the variable IP; the level “Quality of Life” (QOL) indicates that the intervention is intended to improve the resident’s quality of life, while the level “Behaviour Change” (BC) indicates that the purpose of the intervention is to reduce a moderately severe behaviour problem described in the vignette. The use of a moderate behaviour problem is based on the fact that researchers examining treatment acceptability and severity of behaviour have primarily compared moderate and severe behaviour problems (e.g., Frentz & Kelly, 1985; Kazdin, 1980a; Witt, Moe et al., 1984) and have consistently found
that treatments applied to severe problem behaviours are rated as more acceptable than are treatments applied to moderate problem behaviours. There is only one level of challenging behaviour in the current study, and therefore, I did not choose to describe a severe behaviour problem because it could skew the results towards higher acceptability ratings and hence cause a ceiling effect problem.

**Staff Impact.** The variable Staff Impact (SI) refers to the impact that occurs for support staff as a result of the specific choices included in the interventions. Inclusion of this variable is based on the extant literature on choice-making which suggests that staff are often reluctant to offer choices to adults with developmental disabilities because this reduces the extent to which staff themselves can control schedules, activity plans, and so forth (Bannerman et al., 1990). Secondly, as argued in the previous chapter, when service providers increase residents’ choice-making opportunities they are affected because their own control over the situation and ability to make choices become limited. To explore how willing group home staff are to increase residents’ choice-making opportunities, I conducted a survey of seven staff in the group home where I work. I asked staff “to rate their willingness to offer 15 specific types of choices to residents on a 5-point Likert scale on which 1=always willing and 5=never willing. The choices that received the lowest scores (i.e., staff would be most willing to offer them) were assumed to have the lowest SI while the choices that received the highest scores (i.e., staff would be least willing to offer these choices) were assumed to have the greatest SI. Based on the literature, my personal experience, and the findings of the survey, I speculate that the issue of SI is likely to be related to acceptability ratings of choice-making interventions and as a result, the High and Low levels of this variable reflect this hypothesis. Therefore, High (H) indicates that staff are to offer the fictitious resident choices that will impact staff to a greater degree than will choices in Low (L). Specifically, staff offer the fictitious resident choices of (a) what to eat for dinner (menu), (b) which staff member will assist him to complete his morning and evening routines, and (c) whether to take a bath or a shower as
part of his evening routine in the High condition. In the Low condition, staff offer the fictitious resident choices of (a) what to do during his free time at home, (b) what clothes to put on in the morning, and (c) which television program to watch in the evening.

**Time Required.** Finally, the variable Time Required (TR) refers to the amount of time required by staff to plan the intervention and implement it daily. Several previous studies have indicated that the amount of time required for an intervention has a direct affect on raters' perceptions of its acceptability (e.g., Witt, Elliott, & Martens, 1984; Witt & Martens, 1983; Witt, Martens, & Elliott, 1984). The time required for choicemaking interventions is also directly relevant to direct-care staff in a practical sense; experience suggests that staff often explain their failure to implement such interventions with statements such as “I don’t have enough time” or “It takes too much time to do that.” Thus, the effect of time required on treatment acceptability is both theoretically and practically relevant. Short (S) indicates it will require less than 10 minutes to implement, while Long (L) indicates that it will require approximately 60 minutes to implement. The eight combinations of the above variables and levels that will be reflected in the vignettes are displayed in Table 4.
### Table 4

**Variables and Levels in Vignettes**

<table>
<thead>
<tr>
<th>Intervention Purpose</th>
<th>Staff Impact</th>
<th>Time Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Life</td>
<td>Behv' r Change</td>
<td>High</td>
</tr>
<tr>
<td>to improve</td>
<td>dinner menu,</td>
<td>10 min to</td>
</tr>
<tr>
<td>QOL</td>
<td>staff assist,</td>
<td>60 min to</td>
</tr>
<tr>
<td>to improve</td>
<td>bath vs. shower</td>
<td>implement</td>
</tr>
<tr>
<td>QOL</td>
<td>bath vs. shower</td>
<td>implement</td>
</tr>
<tr>
<td>to improve</td>
<td>TV show,</td>
<td>10 min to</td>
</tr>
<tr>
<td>QOL</td>
<td>clothes to wear,</td>
<td>implement</td>
</tr>
<tr>
<td></td>
<td>free time</td>
<td></td>
</tr>
<tr>
<td>to improve</td>
<td>TV show,</td>
<td>60 min to</td>
</tr>
<tr>
<td>QOL</td>
<td>clothes to wear,</td>
<td>implement</td>
</tr>
<tr>
<td></td>
<td>free time</td>
<td></td>
</tr>
<tr>
<td>to reduce target</td>
<td>dinner menu,</td>
<td>10 min to</td>
</tr>
<tr>
<td>behaviour</td>
<td>staff assist,</td>
<td>60 min to</td>
</tr>
<tr>
<td>to reduce target</td>
<td>bath vs. shower</td>
<td>implement</td>
</tr>
<tr>
<td>behaviour</td>
<td>dinner menu,</td>
<td></td>
</tr>
<tr>
<td>to reduce target</td>
<td>staff assist,</td>
<td></td>
</tr>
<tr>
<td>behaviour</td>
<td>bath vs. shower</td>
<td>implement</td>
</tr>
<tr>
<td>to reduce target</td>
<td>TV show,</td>
<td>10 min to</td>
</tr>
<tr>
<td>behaviour</td>
<td>clothes to wear,</td>
<td>implement</td>
</tr>
<tr>
<td></td>
<td>free time</td>
<td></td>
</tr>
<tr>
<td>to reduce target</td>
<td>TV show,</td>
<td>60 min to</td>
</tr>
<tr>
<td>behaviour</td>
<td>clothes to wear,</td>
<td>implement</td>
</tr>
<tr>
<td></td>
<td>free time</td>
<td></td>
</tr>
</tbody>
</table>
Participants were randomly assigned to one of the eight conditions depicted in Table 4. The dependent variable in the study is treatment acceptability as measured by the adapted TEI.

Analysis

Since some minor modifications were made to the TEI, I conducted psychometric analyses (including internal consistency measures and assessing Cronbach's alpha) for the TEI used in the present study. TEI total scores were analyzed using an Analysis of Variance (ANOVA) model to examine main effects for IP, TR, and SI at a level of p<.05. The data was also be analyzed to detect any significant interactions that may occur. Both the relative and absolute acceptability ratings will be presented in order to discuss the statistical and clinical significance of the findings.

Procedure

Construction of the vignettes. The fictitious resident described in the vignettes is based on vignettes used in Miltenberger et al.'s (1989) treatment acceptability study. All eight vignettes will describe the same resident in exactly the same way. As discussed previously, the treatment characteristics included in the vignettes are based both on previous research and personal interest. The eight vignettes can be found in Appendix D (see pg. 97).

I chose to use vignettes in the current study because this enables specific information to be gathered while controlling confounding variables (Brody & McCaslin as cited in Robinson, 1997). For example, the resident’s level of required support and gender are restricted to control for disability and gender effects. The vignettes are based in familiar and realistic settings and the resident was assigned common initials to increase the realism of the vignettes.

Human Participants Approval. After I constructed the vignettes, I completed the UBC Ethical Review Committee Form. I received approval for the procedures described and the materials that I planned to use in gathering data. The Ethical Review Committee
also approved modifications made to the data collection forms and the vignettes made after my thesis proposal meeting.

**Consent.** I obtained agency support from the Directors of the Delta Community Living Society, Mainland Society for Integrated Community Living, and Western Human Resource to conduct research in their group homes. I asked agency officials how they wanted to inform individual group home managers that I plan to attend a staff meeting to recruit participants. The agency official for Western Human Resource asked me to contact individual group home managers on my own; the agency official for Mainstream Society for Integrated Community Living gave me contact information for group home managers but asked me to wait for several days because she wanted to send out memos to group home managers informing them that I would be calling; the agency official for Delta Community Living Society invited me to a managers meeting where I gave a short presentation about my research. Managers who were interested in having their group home staff participate in the study gave me contact information.

**Distribution of research packages.** I distributed research packages consisting of a randomly selected vignette and all data collection forms to participants at group home staff meetings. In each staff meeting, I briefly introduced myself as a graduate student and as a co-worker in the field, described the rationale for and procedure of the study, and then asked for volunteer participants. Specifically, staff were told:

"This study is being conducted because consultation is increasingly being used in group homes that provide support to adults with developmental disabilities. For example, consultants may come into a group home to help staff increase opportunities for residents to make choices. The purpose of this study is to assess direct-care service provider's acceptability ratings of treatments designed to increase choice-making in the life of a fictional resident. Participation in this study involves the following steps: first, you will be asked for some personal information. This information will be kept confidential and will be used for descriptive purposes only. In fact, the questionnaires are numbered so there is no need for you to identify yourself by name. Second, you will be asked to read a brief story about a fictitious resident and an intervention designed by a consultant to increase his ability to make choices. After reading the story, you will be asked to answer 15 brief questions that are designed to assess how acceptable you think the intervention is. The questionnaire will take about 10 minutes to complete. I have received ethical approval for this study from the UBC Ethical Review
Committee. Participation in this study is completely voluntary and there will be no negative outcomes if you choose not to participate. I will hand out consent forms to everyone here at the meeting. Please read the consent form thoroughly and if you choose to participate, sign both copies and hand one copy back to me. If you choose to participate, you can change your mind at any time.

Directions. After I received the signed consent forms, I gave a package containing a demographic form and one of the eight vignettes to each consenting participant. The packages were assigned at random across participants and group homes, such that a total of 11 participants received each of the eight vignettes. I also gave the group home demographic information form to the group home manager and asked him or her to complete it. I asked those people who chose not to participate to move to another room while participants completed their experimental packages. After people who chose not to participate have left the room, I provided the following directions:

"Please complete the personal information section of the package. Then read the vignette and try to imagine it occurring in your group home. Read it as though you would be one of the people responsible for implementing this intervention. Please answer the questions as honestly as you can and do not worry about giving a 'correct' answer because there is no 'correct' answer and I am more interested in your personal opinion. Please complete the questions on your own and do not discuss your answers with other participants. When you have completed the personal information and the 15 questions regarding the intervention, please put your package in the envelope provided. Are there any questions about the instructions?"

Following these directions I asked participants to complete the forms. I remained in the room while participants completed the forms in order to answer any questions. I collected the group home information sheet and experimental packages as participants completed them. I asked if staff were interested in receiving a copy of the study's results and if they were, I ensured that I had the group home's address before thanking everyone for their cooperation and participation. Participants were given a choice between two edible "treats" (a chocolate mint patty or a box of raisins) as a "thank you" for their participation. The average time I was in a group home was 30 minutes.

Treatment integrity. Because I serve as the experimenter, I am not blind to the research hypotheses. I assessed the integrity of the methods used by completing a check-list comprised of each step involved in the administration of the intervention upon
receiving all completed packages from a particular group home. The steps on the check-
list are as follows: (a) introduce self, (b) describe rationale, (c) describe procedure, (d)
request consent from participants (include statements about volunteer status of participants,
option of refusal to participate, their right to terminate participation at any time, and
assurance of no harm to employment standing if consent not given), (e) distribute and
collect signed consent forms, (f) ask non-participants to exit the room for 15 minutes, (g)
distribute experimental packages, (h) gather completed packages, (j) check for participant
questions and answer them as able, (k) inquire if group home wants results of study, (l)
distribute “thank you” choices and exit.
CHAPTER 4

Results

As stated in Chapter 1, the primary purpose of this study was to examine the effects of selected variables on group home staff members’ acceptability ratings of interventions designed to increase choice-making behaviours in adults with developmental disabilities. The results of this study are presented in this chapter in seven sections: (a) participant demographics, (b) group home demographics, (c) choice availability scores, (d) TEI psychometrics, (e) TEI ANOVA results (total scores by Intervention Purpose, Staff Impact, and Time Required), (f) likelihood of implementing intervention data, and (g) treatment integrity data. All statistical tests were carried out at the conventional Type I error probability of 0.05.

Participant Demographics

Eighty-eight direct-care service providers from group homes operated by Mainstream Society for Integrated Community Living (MSCL), Western Human Resource (WHR), or Delta Community Living Society (DCLS) participated in the current study. These included 22 males and 66 females (25% and 75% respectively) with a mean age of 36 (range = 20 to 59). Almost 50% of participants completed one to three years of post-high school education, and 34% of participants had completed a university degree. Most commonly, participants were employed as keyworkers\(^5\) (40%) or as permanent part-time workers (27%), and had worked in their group homes for less than 12 months (43%). Similar numbers of participants had worked with a consultant in their group homes prior to the study; 47 participants (53%) indicated that they had such experiences and 41 participants (47%) indicated that they had not. Education and job position information is summarized in Table 5.

\(^5\) A keyworker is the person with primary responsibility for designing and revising a resident’s programs and ensuring that these programs attempt to achieve the goals set out in a resident’s Personal Service Plan.
### Table 5
Selected Demographic Variables for Participants (N = 88)

<table>
<thead>
<tr>
<th>Selected demographic variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school not completed</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>High school graduate</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>1-3 years post-high school</td>
<td>42</td>
<td>48</td>
</tr>
<tr>
<td>University degree</td>
<td>30</td>
<td>34</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>88</td>
<td>100</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keyworker</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Permanent full-time</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Permanent part-time</td>
<td>24</td>
<td>27</td>
</tr>
<tr>
<td>On-call</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>88</td>
<td>100</td>
</tr>
</tbody>
</table>

**Group Home Demographics**

A total of 22 group homes were involved in this study; 19 (86%) were home to either three or four people with developmental disabilities. Most commonly, (i.e., in 73% of the homes), three or four residents per home required extensive support (characterized by regular staff involvement and/or supervision in at least some activities and environments, such as personal hygiene, communication, or community access). Similarly, in 64% of the homes, one or no residents per home required pervasive support (characterized by constant, intense, potentially life-sustaining supports provided across all activities and environments). The mean number of employees in the group homes was 13.
The most common employee pattern was: three or four people who were permanent full-time employees, another three or four who were permanent part-time employees, and the remainder of the positions (if any) were filled with on-call staff.

One-way ANOVAs were conducted to determine if group house demographics varied as a function of the employing agency. The number of part-time employees was the only variable that varied as a function of agency ($F(2, 19) = 3.90, p = .038$). Tukey post-hoc analyses revealed that MSCL had significantly fewer part-time employees than did either WHR or DCLS.

**Choice Availability**

*Between participant differences.* Independent t-tests revealed that mean choice availability did not vary significantly as a result of either participants' employing agencies or group homes. Both group home managers and employees (i.e., study participants) rated the availability of six specific choices that might be provided to the residents of their group home. The choices were as follows: (a) a choice of whether to take a bath or take a shower, (b) a choice of which clothes to wear in the morning, (c) a choice of what to do during free time in the evening, (d) a choice of what to eat for dinner, (e) a choice of which television show to watch in the evening, and (f) a choice of which staff should provide support to the residents during their morning/evening routines. Ratings were provided on a 1-5 scale where 1 = choice always available, 3 = choice available half of the time, and 5 = choice never available. In general, both group of respondents reported that all of the choices were available to residents more than half the time (mean ratings = 1.96 for managers and 2.24 for employees). The most common response for each choice was that it was always available to group home residents. The one exception to this pattern was managers' responses to residents' choosing which staff would support them during morning or evening routines; this group responded that this choice was available only half of the time. The choice that received the lowest rating (i.e., the one that was rated as most available) was which clothes to wear in the morning which received a mean rating of 1.45.
from managers and 1.48 from employees. The choice that received the highest rating by managers (i.e., the one that was rated as least available) was which staff would support residents during their morning or evening routines (mean rating = 2.86). The highest rated choice (i.e., the one that was rated as least available) by employees was choosing what would be on the dinner menu (mean rating = 2.88).

There was no significant difference ($t = -0.98, p < .05$) in the overall mean availability of the six choices, nor in the mean availability of the six individual choices as a function of type of participant (i.e., group home manager or employee). The $t$-values that were used in these analyses did not assume equal variances because of the unequal number of managers (22) and employees (88). Table 6 summarizes the results of the choice availability questions for both groups of respondents.

Table 6

<table>
<thead>
<tr>
<th>Choice</th>
<th>Mean ratings</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Managers</td>
<td>Employees</td>
</tr>
<tr>
<td>Which clothes to wear</td>
<td>1.45</td>
<td>1.48</td>
</tr>
<tr>
<td>Which TV show to watch</td>
<td>1.60</td>
<td>1.97</td>
</tr>
<tr>
<td>What to do during free time</td>
<td>1.64</td>
<td>2.00</td>
</tr>
<tr>
<td>To bathe or to shower</td>
<td>1.64</td>
<td>2.21</td>
</tr>
<tr>
<td>What is on dinner menu</td>
<td>2.59</td>
<td>2.88</td>
</tr>
<tr>
<td>Which staff will support in completing routines</td>
<td>2.86</td>
<td>2.87</td>
</tr>
</tbody>
</table>

Between choice differences. Because managers' and employees' mean availability of choices did not differ significantly, data for between choice computations were collapsed across the two groups of respondents. The mean ratings across participant
groups are as follows: (a) clothes = 1.47, (b) TV show = 1.79, (c) free time = 1.82, (d) bath vs. shower = 1.93, (e) dinner = 2.74, and (f) staff = 2.87. Paired t-tests of all 15 between-choice comparisons are presented in Table 7.

Table 7

*T-scores for Comparisons of Participant Ratings of Group Home Choices*

<table>
<thead>
<tr>
<th>Choice</th>
<th>t-values</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothes versus TV show</td>
<td>-3.76</td>
<td>.000*</td>
</tr>
<tr>
<td>Clothes versus free time</td>
<td>-4.90</td>
<td>.000*</td>
</tr>
<tr>
<td>Clothes versus bath/shower</td>
<td>4.721</td>
<td>.000*</td>
</tr>
<tr>
<td>Clothes versus menu</td>
<td>-10.45</td>
<td>.000*</td>
</tr>
<tr>
<td>Clothes versus staff</td>
<td>-9.98</td>
<td>.000*</td>
</tr>
<tr>
<td>TV show versus free time</td>
<td>.35</td>
<td>.727</td>
</tr>
<tr>
<td>TV show versus bath/shower</td>
<td>1.36</td>
<td>.177</td>
</tr>
<tr>
<td>TV show versus menu</td>
<td>6.74</td>
<td>.000*</td>
</tr>
<tr>
<td>TV show versus staff</td>
<td>-6.77</td>
<td>.000*</td>
</tr>
<tr>
<td>Free time versus bath/shower</td>
<td>1.32</td>
<td>.191</td>
</tr>
<tr>
<td>Free time versus menu</td>
<td>-7.22</td>
<td>.000*</td>
</tr>
<tr>
<td>Free time versus staff</td>
<td>-6.92</td>
<td>.000*</td>
</tr>
<tr>
<td>Bath/shower versus menu</td>
<td>-5.83</td>
<td>.000*</td>
</tr>
<tr>
<td>Bath/shower versus staff</td>
<td>-5.17</td>
<td>.000*</td>
</tr>
<tr>
<td>Menu versus staff</td>
<td>-.378</td>
<td>.706</td>
</tr>
</tbody>
</table>

*Note: nominal p-values were adjusted to .003 for this analysis because of the number of comparisons.

A paired t-test revealed that, when choices were grouped into proposed High Impact choices (bath vs. shower, dinner menu, and staff to support during routines) and Low Impact choices (clothes, TV show, and free time activity), group home rated Low Impact choices as being significantly more available than High Impact choices (t = 2.99, p =
Similarly, employees rated Low Impact choices as being significantly more available than High Impact choices ($t = 9.24, p = .0001$).

**Psychometric Analyses for the Adapted Treatment Evaluation Inventory**

Since minor wording modifications were made to the TEI, reliability analyses were conducted for the adapted TEI used in the current study. The TEI is a 15-item Likert-type scale; on which 1 = not at all acceptable 4 = moderately acceptable, and 7 = very acceptable. The overall estimate of internal consistency for the entire 15 item scale and the standardized item alpha were both .94. The overall item mean was 5.15 with a minimum value of 4.25, a maximum value of 5.84. All three of these values indicate ratings of "moderately acceptable" or greater. The overall variance of .18 (i.e., there was little variability in how participants rated each of the items on the TEI). Because few psychometric data for the standard TEI are currently available, and because wording modifications were made for the current study, all 15 item intercorrelations are presented in Table 8; see Appendix E (page 103) for the complete wording of each item (key words in Table 8 correspond to one item of the TEI).
### Table 8

**The Treatment Evaluation Inventory Scale Item Intercorrelations**

<table>
<thead>
<tr>
<th>TEI item (by key words)</th>
<th>Improve resident</th>
<th>Do you like</th>
<th>Overall reaction</th>
<th>Risk extent</th>
<th>Suitable for people</th>
<th>Without consent</th>
<th>Undesirable effects</th>
<th>How willing</th>
<th>How acceptable</th>
<th>Not given choice</th>
<th>Consistent w/ common sense</th>
<th>How cruel</th>
<th>Level of discomfort</th>
<th>How effective</th>
<th>How humane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve resident</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you like</td>
<td>.617</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall reaction</td>
<td>.770</td>
<td>.809</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Risk extent</td>
<td>.392</td>
<td>.496</td>
<td>.601</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Suitable for people</td>
<td>.628</td>
<td>.651</td>
<td>.749</td>
<td>.448</td>
<td>1.000</td>
<td></td>
<td></td>
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<tr>
<td>Without consent</td>
<td>.301</td>
<td>.274</td>
<td>.358</td>
<td>.215</td>
<td>.327</td>
<td>1.000</td>
<td></td>
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<tr>
<td>Undesirable effects</td>
<td>.529</td>
<td>.441</td>
<td>.548</td>
<td>.548</td>
<td>.430</td>
<td>.417</td>
<td>1.000</td>
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<tr>
<td>How willing</td>
<td>.579</td>
<td>.675</td>
<td>.769</td>
<td>.450</td>
<td>.640</td>
<td>.303</td>
<td>.472</td>
<td>1.000</td>
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</table>
Table 8 (Continued)

<table>
<thead>
<tr>
<th>TEI item (by key words)</th>
<th>Improve resident</th>
<th>Do you like</th>
<th>Overall reaction</th>
<th>Risk extent</th>
<th>Suitable for people</th>
<th>Without consent</th>
<th>Un-desirable effects</th>
<th>How willing</th>
<th>How acceptable</th>
<th>Not given choice</th>
<th>Consistent w/ common sense</th>
<th>How cruel</th>
<th>Level of discomfort</th>
<th>How effective</th>
<th>How humane</th>
</tr>
</thead>
<tbody>
<tr>
<td>How acceptable</td>
<td>.707</td>
<td>.688</td>
<td>.813</td>
<td>.458</td>
<td>.754</td>
<td>.255</td>
<td>.439</td>
<td>.825</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not given choice</td>
<td>.395</td>
<td>.411</td>
<td>.486</td>
<td>.310</td>
<td>.536</td>
<td>.440</td>
<td>.376</td>
<td>.406</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistent w/ common sense</td>
<td>.562</td>
<td>.655</td>
<td>.734</td>
<td>.496</td>
<td>.636</td>
<td>.443</td>
<td>.500</td>
<td>.665</td>
<td>.718</td>
<td>.459</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Level of discomfort</td>
<td>.370</td>
<td>.463</td>
<td>.481</td>
<td>.460</td>
<td>.360</td>
<td>.275</td>
<td>.535</td>
<td>.323</td>
<td>.424</td>
<td>.274</td>
<td>.463</td>
<td>.223</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How effective</td>
<td>.807</td>
<td>.665</td>
<td>.782</td>
<td>.509</td>
<td>.768</td>
<td>.254</td>
<td>.468</td>
<td>.586</td>
<td>.741</td>
<td>.493</td>
<td>.578</td>
<td>.417</td>
<td>.387</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>How humane</td>
<td>.592</td>
<td>.707</td>
<td>.720</td>
<td>.497</td>
<td>.706</td>
<td>.280</td>
<td>.419</td>
<td>.467</td>
<td>.583</td>
<td>.407</td>
<td>.564</td>
<td>.405</td>
<td>.456</td>
<td>.749</td>
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</tbody>
</table>
Absolute TEI Ratings

Eleven participants completed the TEI for each of eight different vignettes. The minimum participant rating was 30, the maximum participant rating was 104, and the standard deviation of all scores was 17.38. The overall mean TEI score was 77.18 with a minimum cell mean of 71.27 and a maximum cell mean of 82.09. Table 9 presents the vignettes’ cell means (rank ordered from lowest to highest) and standard deviations.

Table 9
Vignettes in Rank Order by Mean

<table>
<thead>
<tr>
<th>Vignette version</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenging Behaviour/Low Impact/Long Time</td>
<td>71.27</td>
<td>17.66</td>
</tr>
<tr>
<td>Quality of Life/High Impact/Long Time</td>
<td>74.18</td>
<td>20.26</td>
</tr>
<tr>
<td>Quality of Life/ Low Impact/Short Time</td>
<td>75.82</td>
<td>18.97</td>
</tr>
<tr>
<td>Challenging Behaviour/High Impact/Short Time</td>
<td>76.45</td>
<td>15.70</td>
</tr>
<tr>
<td>Quality of Life/ Low Impact/Long Time</td>
<td>78.18</td>
<td>18.33</td>
</tr>
<tr>
<td>Challenging Behaviour/ High Impact/ Long Time</td>
<td>79.09</td>
<td>24.77</td>
</tr>
<tr>
<td>Challenging Behaviour/Low Impact/ Short Time</td>
<td>80.36</td>
<td>12.01</td>
</tr>
<tr>
<td>Quality of Life/High Impact/Short Time</td>
<td>82.09</td>
<td>10.62</td>
</tr>
</tbody>
</table>

Analyses were conducted to determine if TEI scores were affected by demographic variables. Independent t-tests revealed that TEI scores did not vary significantly as a function of either participants’ gender nor their experience with consultants. One-way ANOVAs revealed that TEI scores did not vary significantly as a function of which agency the participant was from, participant education level, job position held, nor length of employment. Finally, a bivariate correlation revealed that TEI scores did not vary as a function of participant age.
**Analysis of Variance.** In order to determine if participants differentially rated the acceptability of the vignettes as a function of Intervention Purpose, Staff Impact, and Time Required, responses on the TEI were analyzed using a 2x2x2 analysis of variance. The results of the analysis were all nonsignificant and are presented in Table 10.

**Table 10**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Life (QOL) x Challenging behaviour (CB)</td>
<td>1</td>
<td>.027</td>
<td>.871</td>
</tr>
<tr>
<td>High x Low Staff Impact (SI)</td>
<td>1</td>
<td>.189</td>
<td>.665</td>
</tr>
<tr>
<td>Short x Long Time Required (TR)</td>
<td>1</td>
<td>.562</td>
<td>.455</td>
</tr>
<tr>
<td>Intervention Purpose (IP) x SI</td>
<td>1</td>
<td>.006</td>
<td>.937</td>
</tr>
<tr>
<td>IP x TR</td>
<td>1</td>
<td>.010</td>
<td>.921</td>
</tr>
<tr>
<td>SI x TR</td>
<td>1</td>
<td>.005</td>
<td>.946</td>
</tr>
<tr>
<td>IP x SI x TR</td>
<td>1</td>
<td>.218</td>
<td>.144</td>
</tr>
</tbody>
</table>

**Likelihood of Implementing the Intervention**

Participants were asked to rate how likely they would be to implement the intervention described in their vignette on a scale of 1-7 where 1 = not at all likely, 4 = moderately likely, and 7 = very likely. Overall, participants reported that they were more than moderately likely to implement the intervention (mean rating = 5.43). In order to determine if participants differentially rated the likelihood of implementing the intervention/program as a function of IP, SI, and/or TR, a 2x2x2 ANOVA was conducted; results of this analysis were all non-significant. A one-way ANOVA was conducted to determine if participants were more likely to implement the intervention as a function their employing agency; the results were nonsignificant (F(2, 84) = .364, p = .696).
to determine if the likelihood of implementation varied as a function of total TEI scores, a bivariate correlation was conducted. These scores were highly correlated; the higher participants rated an intervention with regards to its acceptability (i.e., the higher the TEI score), the higher they rated the likelihood that they would implement it ($r = .72, p < .01$).

**Treatment Integrity**

Finally, in order to assess the integrity with which I carried out the study, I completed a checklist of steps in each group home I attended. Of a total of 242 steps across all administrations of the research protocol, I completed 239 steps correctly, for a treatment integrity level of 99%. At the first two staff meetings I attended, I forgot to ask the staff if anyone was interested in receiving the results; I later phoned these houses to complete this step. At the second to last staff meeting, I did not leave the house upon completing the study because I was also participating in the meeting. All other activities were completed as per the checklist.
CHAPTER 5

Discussion

This chapter presents the discussion and conclusions of the results reported in Chapter 4. Results will be discussed in the following order: (a) participant and group home data, (b) TEI data, (c) ANOVA data, (d) limitations; and (e) future research.

Participant and Group Home Data

Participants came from 22 group homes operated by three B.C. agencies that provide support to adults with developmental disabilities living in small group homes. The demographic data suggest that, at least to some degree, the participants were representative of the general population of direct-care service providers working in such facilities. For example, many more women participated in the study than did men, and most participants were employed in their group homes for less than a year. These characteristics mirror those reported in other studies whose participants were drawn from the same population (e.g., Bersani & Heifetz, 1985; Bordieri & Peterson, 1988).

The number of participants who were part-time employees varied significantly as a function of the employing agency, such that Mainstream Society for Integrated Community Living had significantly fewer part-time employees than did Western Human Resource or the Delta Community Living Society. It is possible that this reflects a different staffing model in this agency, but its significance has little bearing on the results of the current study. None of the other demographic variables for which data were collected (e.g., participants' genders, ages, lengths of employment, educational levels, etc.) were significantly different across either agencies or individual group homes. The fact that at least some of the participant demographics were similar to those reported in other studies, and the finding of no significant differences across all but one demographic variable together suggest that, at a minimum, the results from the current study are generalizable to the population of direct-care service providers in the Lower Mainland of B.C...
TEI Data

Absolute TEI scores. Rasnake (1993) reviewed the treatment acceptability literature and focused on the relationship between absolute scores and the acceptability of the interventions rated. For example, the midpoint rating of the TEI scale is four (the range is from one to seven). Thus, a total score reflecting “moderate” acceptability would be 60 (15 items multiplied by a midpoint rating of 4 for each). However, Rasnake (1993) suggested that acceptability scores in the absolute range of 50 to 70 could be considered to be “moderately acceptable.” Rasnake then examined the results from Kazdin’s (1980a) treatment acceptability study, in which the TEI was first published. She observed that, of all the treatments described in Kazdin’s study (reinforcement of incompatible behaviour, time out from reinforcement, drug therapy, and electric shock), only reinforcement of incompatible behaviour received a “moderately acceptable” mean rating, given his definition of this construct. All other treatments were rated as less acceptable than reinforcement of incompatible behaviour. Rasnake (1993) suggested that it is important not only to examine the variables that affect treatment acceptability ratings but also to examine what absolute TEI scores reveal about the acceptability of the interventions described.

In the current study, the absolute mean TEI score was 77.18; the eight vignette mean TEI scores ranged from 71.27 to 82.09 (see Table 9, pg. 69). Thus, the absolute TEI scores reveal that participants rated all interventions as somewhat more than moderately acceptable, according to Rasnake’s (1993) construct. This is logical because all of the interventions were positive in nature (i.e., they did not emphasize the mere reduction of specific behaviours using aversive procedures), and positive interventions have been found to be more acceptable than reductive interventions in previous research studies (e.g., Elliott, Witt et al., 1984; Fairbanks & Stinnet, 1997; Kazdin, 1980a/b). Unfortunately, however, the similarity in nature of the vignettes decreased the range of scores and thus, the probability of finding significant differences between them.
Therefore, the fact that this study utilized generally “acceptable” interventions may explain, in part, the lack of significant differences between vignettes.

Relative TEI Scores. The rank ordered comparison of the eight vignettes (Table 9) warrants discussion because it appears from this Table that at least one of the participant ratings of treatment acceptability is contrary to hypotheses made in Chapter 2. According to one hypothesis, interventions whose purpose was to increase quality of life (QOL) should have been rated as less acceptable than interventions whose purpose was to decrease challenging behaviour. However, the results indicated that two of the four interventions aimed at increasing QOL were rated as relatively more acceptable than interventions directed at challenging behaviour. Furthermore, the intervention receiving the highest acceptability rating was designed to increase QOL. Therefore, the hypothesis regarding Intervention Purpose was not supported in two ways: (a) degree, in that there was no significant main effect for this variable (see next section of this Chapter), and (b) direction, in that some intervention combinations designed to increase QOL were rated as more acceptable than interventions designed to decrease challenging behaviour.

ANOVA Data

The results of the 2x2x2 ANOVA provided no statistical support for the hypotheses that Intervention Purpose, Staff Impact, and/or Time Required affected direct-care service providers’ acceptability ratings of interventions designed to increase choice-making in the lives of adults with developmental disabilities. Participants provided statistically similar acceptability ratings for interventions across all three variables. I will discuss some of the possible explanations for this lack of significance with regard to each of the independent variables as well as the overall research design.

Intervention purpose. As described in Chapter 2, I hypothesized that direct-care service providers would rate interventions designed to increase choice-making in the lives of adults with developmental disabilities as more acceptable if the interventions’ purpose was to decrease challenging behaviour rather than to increase QOL. This hypothesis was
not supported by the data ($F(1, 80) = .027, p = .871$). Instead, the data suggest that
direct-care service providers found interventions aimed at increasing the QOL of the
resident in the vignette to be equally acceptable as those aimed at decreasing his
challenging behaviour.

One explanation for this finding is that there has been a shift over the past decade
or more in the philosophy of group home care such that the direct-care service providers
involved in this study viewed efforts directed at increasing residents’ QOL as valuable and
important. One factor that supports this explanation is the level of education of the
participants in the current study; 34% of the participants had university degrees. This is in
contrast to, for example, Bordieri and Peterson’s (1988) study, in which they reported that
only 21.9% of group home staff had completed university degrees. This suggests that the
participants in the current study may have had more education than direct-care service
providers in the past, and thus may have been exposed to the relatively recent research
emphasizing the importance of QOL. Further, the philosophies of all three employing
agencies emphasize quality of life and choice-making as critical in the lives of the people
they support. The cumulative effect appears to be that participants’ attitudes about QOL
were more positive than that reported in the literature upon which my original hypothesis
was based.

**Staff impact.** I also hypothesized that direct-care service providers would rate
interventions with low staff impact as more acceptable than those with high staff impact.
Specifically, on the basis of a small pilot study, I proposed that the choices that would
impact staff the least included having the resident choose (a) which clothes to wear in the
morning, (b) what to do during his free time, and (c) what TV show to watch.
Conversely, I proposed that the choices that would impact staff the most were having the
resident choose (a) whether to have a bath or a shower, (b) what to eat for dinner, and (c)
which staff member would support him in complete his morning/evening routines.

This low versus high staff impact hypothesis was not supported by the data ($F(1,$
Instead, the data suggested that direct-care service providers rated interventions with high staff impact as being equally acceptable as interventions with low staff impact. However, the grouping of choices into High and Low Impact groups suggests that this construct has some validity. The participants reported that the three proposed low impact choices were, indeed, significantly more available in their group homes than were the three proposed high impact choices \((t = 9.42, p = .001)\). The group home managers reported similar data \((t = 2.99, p = .007)\). Therefore, there does appear to be a relationship of some degree between the two groups of choices and caregivers’ willingness to make them available to residents. Unfortunately, the fact that there were significant differences between choices within impact groups (e.g., between the two Low Impact choices of clothes and free time) limits the conclusions that can be made about this variable. Therefore, the relationship between Staff Impact, willingness to make choices available to residents, and treatment acceptability remains unclear (see Table 7, p. 65).

**Time required.** Of the three independent variables in the current study, I was most confident that this variable would affect treatment acceptability ratings because it has been shown to affect such ratings consistently in previous studies (e.g., Witt, Elliott et al., 1984; Witt & Martens, 1983; Witt, Martens et al., 1984). In accordance with previous research findings, I hypothesized that direct-care service providers would rate interventions that required a short amount of time to implement as more acceptable than those that required a long amount of time. However, the data did not support this hypothesis \((F(1, 80) = .562, p = .455)\). Instead, the data suggest that direct-care service providers found interventions that required a long amount of time to implement (i.e., 60 minutes a day) to be as acceptable as interventions that required a short amount of time (i.e., less than 10 minutes a day) although these means did show the greatest difference.

One explanation for this result may be that the two levels of the time variable did not differ sufficiently in the vignettes used in the present study. For example, Witt, Martens et al. (1984) compared acceptability ratings for an intervention that required a low
amount of teacher time to maintain (i.e., less than 30 minutes per day) with those for an intervention that required a high amount of teacher time (i.e., more than 2 hours of start-up time and more than one hour a day to maintain). In comparison, the "short" amount of time required in the current study was less than that used by Witt, Martens et al. (1984). However, the "long" amount of time in the current study was also less than that used by Witt, Martens et al. (1984) because they included an explicit amount of start-up time (i.e., more than 2 hours). In the current study, the start-up time was made less explicit; the vignettes for short time simply stated that "The PRT consultant will provide all of the materials that are needed to carry out the intervention/program" and the vignettes for long time stated that "You need to locate symbols of each of the options available during the choice-making times and then implement the intervention." The net result may have been that there was insufficient discrepancy between the short and long times in the current study to influence participants' TEI ratings significantly.

A second possible explanation for the finding that time required did not significantly affect treatment acceptability ratings is that the direct-care service providers who participated in this study were not as affected by this variable as were those in previous treatment acceptability studies. Researchers who have manipulated time required as a variable in previous studies have often utilized teachers as participants and have described interventions that were implemented in classrooms (e.g., Witt, Martens et al., 1984). As noted in Chapter 2, the type of participant has been shown to affect acceptability ratings, regardless of the intervention characteristic(s) under examination. For example, the acceptability scores provided by preservice or student teachers for specific interventions were found to differ from those provided experienced teachers (Witt, Elliott et al., 1984; Witt, Martens et al., 1984). Given the known effects of participant type on treatment acceptability, it is perhaps not surprising that, although time required has been found to be related to the acceptability ratings of teachers in classrooms, it did not significantly affect group home staffs’ ratings in the present study.
Research design

As discussed in Chapter 3, I decided that a 10-point difference in relative TEI scores between vignettes would be statistically important to detect. Unfortunately, the average difference between cell means in the study was only two points (range = .91-2.48). Given these small differences, a standard deviation of 17.38, and alpha of .05, the number of participants needed to guard against Type II error (i.e., not finding a significant difference that actually exists) would be much larger than the 88 people who actually participated in the current study. Therefore, the actual number of participants in the current study (88) was too small to detect significant differences between the vignettes. Another important research design factor is the power of the intervention. I assumed I had a power of .80 as a result of the power analysis conducted before I began to collect data but, in actual fact, the power of the intervention ranged between .04 and .31. Therefore, the intervention used in the current study had a very low power to find significant differences between vignettes even if these differences actually existed. Other factors that may have contributed to the lack of significant findings include the positive nature of all vignettes (as described in the previous section on absolute TEI scores), the fact that the standard deviations for each of the eight vignettes were quite high (see Table 9, p. 69), indicating a high degree of within-vignette variability (i.e., all of the participants reading each vignette gave widely different ratings for the interventions described). A possible explanation for the high within-vignette variability is that factors other than those manipulated in each of the vignettes may have influenced participants' ratings. reading each vignette gave widely different ratings for the interventions described).

For example, one participant commented after reading her vignette that she objected to the Provincial Review Team suggesting that staff should implement an intervention to increase the number of choices available to the resident. She felt that making such a suggestion was beyond the jurisdiction of the Provincial Review Team. Given this
objection, she may have rated her vignette as unacceptable for a reason unrelated to the manipulated variables represented in it. While there is no way to know if reactions such as this were common with regard to one or more aspects of the basic vignettes, that possibility cannot be overlooked.

Other characteristics of the vignettes themselves may also have contributed to the lack of significant results. For example, the vignettes in the current study were modeled after that used by Miltenberger et al. (1989), which involved institutional and community-based staff and the acceptability of behavioural treatments. The background information in the Miltenberger et al. vignette was approximately 115 words in length and the description of the intervention was approximately 90 words in length. The vignettes used in the current study were considerably longer; the background information was approximately 165 words in length and the intervention description was approximately 215 words in length. It is possible that the length of the vignettes hindered participants from noticing the manipulated information and basing their acceptability ratings on this information.

Another explanation for the results is that the interventions in the vignettes may not have been described in sufficient detail to affect participants' acceptability ratings. Anecdotal responses from some participants suggested that they felt the need to see the intervention in practice before deciding on its acceptability, or that they did not feel there was enough information for them to rate the acceptability with a high degree of comfort. These individuals mentioned that they would have liked additional information in the vignettes, such as how the intervention would affect other residents, how much the resident himself liked the intervention, and how effective the intervention had been with other residents before they could give accurate acceptability ratings. Thus, in making their judgments about the intervention acceptability, it appears that participants wanted to consider intervention characteristics in addition to those included in the present study.
Perhaps this limited amount of the information in the vignettes contributed to the lack of significant findings.

**Limitations of the Study.**

**Analogue design.** The primary limitation of the current study was its analogue design, which limits its ecological validity (Witt, Martens et al., 1984). This is a limitation inherent in analogue research studies in general, and one that is frequently mentioned in the treatment acceptability literature (e.g., Kutsick et al., 1991; Miltenberger et al., 1991; Reimers et al., 1987; Tarnowski et al., 1989). Several researchers examining treatment acceptability have called for research in which treatments are rated while they are actually implemented (e.g., Miltenberger et al., 1991), but most treatment acceptability research has not heeded this call. However, in one recent study that did respond to the call for more ecologically valid treatment acceptability research, Martens, Kelly, and Diskin (1996) examined teachers' acceptability ratings before and after actual use of a classroom intervention. The relevant finding from Martens et al. (1996) is that post-implementation treatment acceptability ratings were predicted by pre-implementation ratings. This suggests that the current study may have some degree of ecological validity, despite its failure to address this issue directly. That is, the TEI scores related to the vignettes in this study may, indeed, predict the TEI scores that would have been obtained if actual implementation had occurred (i.e., there would be no significant differences in the acceptability ratings of these interventions if they were implemented).

Despite the potential limitation inherent in an analogue design, there are two reasons for arguing that it was appropriate to use in the current study. First, as noted in Chapter 3, the nature of the participants involved in treatment acceptability research is likely to affect the results, regardless of the variable(s) being examined. This study contributes to the body of work in this area because it was the first to involve participants from small residential group homes as participants. Second, this study involved only one variable (i.e., Time Required) that has been examined previously with regard to its affects...
on treatment acceptability; the other two variables (i.e., Intervention Purpose and Staff Impact) were exploratory in nature. Because the present study involved both novel participants and primarily novel variables, it seemed suitable to use an analogue design because it allowed for more stringent control of the independent variables in question.

Desire to please. A second potential limitation that is related to the analogue design used in this study is that the participants may have provided answers that they thought the researcher wanted to hear (Schwartz and Baer as cited in Kemp, Miltenberger, and Lumley, 1996). However, Kemp et al. (1996) conducted a study to explore the effects of the “desire to please” and found that participants’ acceptability ratings did not seem to be affected by this variable. Kemp et al. (1996) randomly assigned participants to one of three experimental groups before asking them to rate the acceptability of one of five behaviour interventions: (a) direct reinforcement of other behaviour, (b) respose cost, (c) time out, (d) personal restraint, and (e) contingent electric shock. Each experimental group received either: (a) standard instructions, (b) “fake good” instructions, in which participants were told to answer each question according to how they guessed their bosses would want them to answer, and (c) “prompted honesty” instructions, in which participants were told to answer the questions according to how they really viewed the procedure, regardless of how they thought their bosses might want them to respond. The results from Kemp et al. (1996) do not support the concern that treatment acceptability ratings are affected by participants desire to “please” others. Thus, the results from the current study can be accepted with greater confidence.

Future Research

It is important to heed the call for more naturalistic treatment acceptability research, as exemplified by the design used by Martens et al. (1996). For example, a future research study could ask group home staff to (a) rate the acceptability of a range of interventions being considered for implementation, (b) implement the intervention that
receives the highest acceptability rating, and then (c) ask staff for post-implementation acceptability ratings.

The findings from the current study suggest that at least one of the factors that has been found to be important in teacher and classroom studies of acceptability (i.e., Time Required) may not be as important to those involved in implementing interventions in group homes. Future research is required to determine the factors that do affect the acceptability of interventions designed for use in group homes. For example, anecdotal responses from this study point to the importance of examining the relationship between treatment acceptability and the impact of an intervention on other residents, the degree to which a resident him- or herself likes an intervention, and the effectiveness of an intervention. It would be of particular interest to examine the effect of treatment acceptability ratings on treatment effectiveness in such settings, since this variable goes back to the roots of this body of research. Kazdin (1981) suggested that treatments rated as highly acceptable are more likely to be carried out successfully (i.e., more effectively), but there is little empirical evidence for this statement (Reimers et al., 1987).

It would also be useful to replicate the current study using descriptions of the target behaviour and interventions that are matched for length to those used by Miltenberger et al. (1989), or by using short and long versions of the same vignettes. One could then explore the hypothesis that the participants in the current study did not notice the manipulated treatment characteristics because of the length of the descriptions.

Summary

In summary, there were few significant results in the current study. None of the primary research hypotheses were supported by the data. Specifically, the results did not support the hypotheses that the purpose of an intervention, the impact of an intervention on staff, and the time required to implement an intervention would affect the acceptability ratings made by direct-care service providers. The lack of significant results may reflect (a) the fact that the vignettes were all based on positive interventions and on current best
practices (b) a shift in the philosophy of residential services to adults with developmental disabilities such that increasing QOL was seen by the participants as equal in importance to decreasing challenging behaviour and/or (c) insufficient sample size to detect an actual difference between vignettes. It is also likely that the lack of significance is due, in part, to a failure to sufficiently manipulate the independent variables. Despite the limitations of the study, its uniqueness with regard to the participant population involved and the exploration of two novel independent variables, Intervention Purpose and Staff Impact, makes it a valuable contribution to the extant treatment acceptability research.
REFERENCES


Appendix B

Personal Information Form

Please complete the items listed below. The items should be completed by circling the appropriate response. Remember that all information received from you is strictly confidential and you should not identify yourself by name or by workplace.

1. Are you a male or female?
   a. male
   b. female

2. What is your age? _____

3. How much education have you completed?
   a. high school not completed
   b. high school graduate
   c. 1-3 years post-high school
   d. university degree
   e. graduate degree

4. What position do you hold at this group home?
   a. keyworker
   b. permanent full-time
   c. permanent part-time
   d. on-call

5. How many months have you been working at this group home?
   a. 0-12
   b. 13-36
   c. 37-60
   d. 61+

6. Have you ever been involved with outside consultants to develop or implement interventions/programs for the residents of this group home?
   a. yes
   b. no
Appendix C
House Information Form

Group home manager: Please provide the information requested below about this group home. Remember that all information received is strictly confidential and the workplace will not be known by name.

1. How many people live in this home? _____

2. How many residents of this group home require the following levels of support?
   
   a. extensive: Supports are characterized by regular (e.g., daily) staff involvement and/or supervision in at least some activities and environments, such as personal hygiene, communication, community access, etc. Support is not time-limited (i.e., this level of support has been long-term and will continue indefinitely)? _____
   
   b. pervasive: Supports are constant of high intensity (i.e., they may be 1:1), and are provided across all activities and environments. Supports are potentially life-sustaining in nature)? _____

3. How many staff (of all job descriptions) are employed in this group home? _____
   
   a. How many full-time? _____  
   b. How many part-time? _____

4. What choices are currently available to the residents of this group home?
   
   a. Choice between taking a bath or taking a shower

   1 always 2 half the time 3 never

   b. Choice of which clothes to wear in the morning

   1 always 2 half the time 3 never

   c. Choice of what to eat for dinner (dinner menu)

   1 always 2 half the time 3 never

   d. Choice of what to do during free time in the evening at home

   1 always 2 half the time 3 never

   e. Choice of which staff will assist with morning or evening routine

   1 always 2 half the time 3 never

   f. Choice of which TV show to watch in the evening

   1 always 2 half the time 3 never
Appendix D

Research Vignettes

1. (QOL, Himpct, Short)
   The resident, BR, is a 31 year old man with moderate developmental disabilities (mental retardation) who lives in a group home with three other men. He requires regular supervision and support to complete personal hygiene activities such as washing his hair and to learn social skills such as appropriate physical contact. BR is generally pleasant, interacts with staff and other residents, and seems to like staff attention. BR engages in tantrums (one-two per day that last 5-10 minutes) that are disruptive to the normal routine but do not result in aggression. The Provincial Review Team (PRT) recently assessed the functioning of BR’s group home and noted that BR needs to have more opportunities to make choices across the day. The PRT consultant suggested that increasing the number of choices available to BR is likely to increase his quality of life. Many researchers have noted that people with developmental disabilities who have frequent opportunities to make choices usually experience a higher quality of life.

   Several days later, a member of the PRT returned to BR’s home and described the following intervention/program that you, BR’s key worker, will be responsible for implementing, with the assistance of other staff: BR will be given choices of
   • what to eat for dinner (menu)
   • which staff member will assist him with his morning and evening routine
   • whether to take a bath or take a shower during his evening routine.
   At the appropriate times, you or a coworker will show BR two black and white line drawings that represent available options and have him choose between them. Examples include showing BR line drawings of spaghetti and pizza and asking “BR, do you want to have spaghetti or pizza for dinner?” or showing BR line drawings of a person taking a bath and a person taking a shower and asking “BR, do you want to take a bath or take a shower?” When BR points to one of the drawings, you or a coworker will provide access to that activity or object. The PRT consultant will provide all of the materials that are needed to carry out the intervention/program. It will take less than 10 minutes a day for you or a coworker to carry out the intervention/program.

2. (QOL, Himpct, Long)
   The resident, BR, is a 31 year old man with moderate developmental disabilities (mental retardation) who lives in a group home with three other men. He requires regular supervision and support to complete personal hygiene activities such as washing his hair and to learn social skills such as appropriate physical contact. BR is generally pleasant, interacts with staff and other residents, and seems to like staff attention. BR engages in tantrums (one-two per day that last 5-10 minutes) that are disruptive to the normal routine but do not result in aggression. The Provincial Review Team (PRT) recently assessed the functioning of BR’s group home and noted that BR needs to have more opportunities to make choices across the day. The PRT consultant suggested that increasing the number of choices available to BR is likely to increase his quality of life. Many researchers have noted that people with developmental disabilities who have frequent opportunities to make choices usually experience a higher quality of life.
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3. (QOL, Limpct, Short)

The resident, BR, is a 31 year old man with moderate developmental disabilities (mental retardation) who lives in a group home with three other men. He requires regular supervision and support to complete personal hygiene activities such as washing his hair and to learn social skills such as appropriate physical contact. BR is generally pleasant, interacts with staff and other residents, and seems to like staff attention. BR engages in tantrums (one-two per day that last 5-10 minutes) that are disruptive to the normal routine but do not result in aggression. The Provincial Review Team (PRT) recently assessed the functioning of BR’s group home and noted that BR needs to have more opportunities to make choices across the day. The PRT consultant suggested that increasing the number of choices available to BR is likely to increase his quality of life. Many researchers have noted that people with developmental disabilities who have frequent opportunities to make choices usually experience a higher quality of life.

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- which TV show to watch in the evening
- what to do with his free time in the house
- what clothes to wear when getting dressed in the morning.

At the appropriate times, you or a coworker will show BR two black and white line drawings that represent available options and have him choose between them. Examples include showing BR line drawings of a puzzle and a board game and asking “BR, do you want to do a puzzle or play a game during your free time?” or showing BR line drawings of a button-down shirt and a T-shirt and asking “BR, do you want to wear a button-down shirt or a T-shirt today?” When BR points to one of the drawings, you or a coworker will provide access to that activity or object. The PRT consultant will provide all of the materials that are needed to carry out the intervention/program. It will take less than 10 minutes a day for you or a coworker to carry out the intervention/program.
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5. *(Ch. Beh., Himpct, Short)*

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Appendix E
Modified Treatment Evaluation Inventory
(adapted from Kazdin, 1980)

Please complete the items listed below. The items should be completed by placing a checkmark on the line under the question that best indicates how you feel about the treatment. Please read the items very carefully because a checkmark accidentally placed on one space rather than another may not represent the meaning you intended.

1. How acceptable do you find this intervention/program?
   
   not at all acceptable  moderately acceptable  very acceptable

2. How willing would you be to carry out this intervention/program yourself?
   
   not at all willing  moderately willing  very willing

3. How suitable is this intervention/program for people with developmental disabilities?
   
   not at all suitable  moderately suitable  very suitable

4. If residents had to be assigned to treatment without their consent, how bad it be to give them this treatment?
   
   very bad  moderately  not bad at all

5. How cruel or unfair do you find this treatment?
   
   very cruel  moderately cruel  not cruel at all

6. Would it be acceptable to apply this intervention/program to individuals who are not given an opportunity to choose treatment for themselves?
   
   not at all acceptable to  moderately acceptable  very acceptable

7. How consistent is this intervention/program with common sense of everyday notions about what treatment should be?
   
   very inconsistent  moderately consistent  very consistent
8. To what extent does this intervention/program treat the resident humanely?

<table>
<thead>
<tr>
<th></th>
<th>does not treat</th>
<th>treats them</th>
<th>treats</th>
<th>humanely at all</th>
<th>moderately humanely</th>
<th>very humanely</th>
</tr>
</thead>
</table>

9. To what extent do you think there might be risks in undergoing this kind of intervention/program?

<table>
<thead>
<tr>
<th></th>
<th>lots of risks</th>
<th>some risks</th>
<th>no risks</th>
<th>are likely</th>
<th>are likely</th>
<th>are likely</th>
</tr>
</thead>
</table>

10. How much do you like the procedures used in this intervention/program?

<table>
<thead>
<tr>
<th></th>
<th>do not like</th>
<th>moderately</th>
<th>like them</th>
<th>them at all</th>
<th>like them</th>
<th>very much</th>
</tr>
</thead>
</table>

11. How effective is this intervention/program likely to be?

<table>
<thead>
<tr>
<th></th>
<th>not at all effective</th>
<th>moderately effective</th>
<th>very effective</th>
</tr>
</thead>
</table>

12. How likely is this intervention/program to make permanent improvements in the resident?

<table>
<thead>
<tr>
<th></th>
<th>unlikely</th>
<th>moderately</th>
<th>very likely</th>
</tr>
</thead>
</table>

13. To what extent are undesirable side effects likely to result from this intervention/program?

<table>
<thead>
<tr>
<th></th>
<th>many undesirable side effects likely</th>
<th>some undesirable side effects likely</th>
<th>no undesirable side effects likely</th>
</tr>
</thead>
</table>

14. How much discomfort is the resident likely to experience during the course of intervention/program?

<table>
<thead>
<tr>
<th></th>
<th>very much discomfort</th>
<th>moderate discomfort</th>
<th>no discomfort at all</th>
</tr>
</thead>
</table>

15. Overall, what is your general reaction to this form of intervention/program?

<table>
<thead>
<tr>
<th></th>
<th>very negative</th>
<th>ambivalent</th>
<th>very positive</th>
</tr>
</thead>
</table>

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Appendix F

Choice-making Background Form

1. What choices are currently available to the residents of this group home?
   a. Choice between a bath or a shower
      1 always 2 half the time 3 never
   b. Choice of which clothes to wear in the morning
      1 always 2 half the time 3 never
   c. Choice of what to eat for dinner (dinner menu)
      1 always 2 half the time 3 never
   d. Choice of what to do during free time in the evening at home
      1 always 2 half the time 3 never
   e. Choice of which staff will assist with morning or evening routine
      1 always 2 half the time 3 never
   f. Choice of which TV show to watch in the evening
      1 always 2 half the time 3 never

2. If this client lived in the group home where you work, how likely would it be that you would implement this intervention/program?

   not at all likely
   moderately likely
   very likely

Thank-you for your time and effort!!