

A Prospective and Retrospective Program Evaluation of a Community-Based Behaviour  
Stabilization Service  
by  
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### **Abstract**

As many as 20% of adults with intellectual disabilities (ID) display challenging behaviours such as self-injury or aggression, which may negatively impact quality of life, learning, employment, and social integration (Bowring et al., 2019; Emerson et al., 2001; Sheehan & Hassiotis, 2017). Without adequate intervention, disruptive challenging behaviours may lead to a behavioural crisis (McCombe et al., 2022; Weiss et al., 2009). A behavioural crisis occurs when an individual with ID engages in aggressive behaviour that results in imminent and significant threats to safety (their own, or safety of others) (McCombe et al., 2022; Rubin et al., 2007). In the context of behavioural crises, behavioural stabilization services can provide assistance through behavioural consultation and assessment to create a path for successful community integration (Rubin et al., 2007; Wieseler et al., 2002). Previous literature is lacking in guidance on the best way to structure a behaviour stabilization service (McCombe et al., 2022). A logic model framework to evaluate a behaviour stabilization program provides a consistent and systematic way to understand program components and compare programs. Prior evaluations of behaviour stabilization programs that performed outreach and capacity building did not use a logic model framework and lacked social validity information from multiple perspectives. The purposes of this research were to comprehensively evaluate St. Amant's Community Stabilization Service (CSS) through the use and co-construction of a logic model and social validity measures, to identify the strengths and weaknesses of CSS at St. Amant, and provide a list of recommendations to strengthen the program and improve service. Two studies were conducted that used anonymized retrospective data and prospective data. Retrospective data from CSS and two outside organizations were collected and analyzed from April 1, 2017-March 31, 2021, to characterize the program's inputs, activities, outputs, and outcomes. The nine prospective survey

respondents were generally satisfied with the program. This research contributes to the current, limited research in this area by providing a methodological improvement over prior work by using a logic model framework to evaluate a behaviour stabilization program.

*Keywords:* behaviour stabilization, challenging behaviours, Intellectual disabilities, social validity, logic model, program evaluation

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## Introduction

Living in a home, getting to know your neighbours, and being an engaged member of your community are ordinary experiences that many take for granted. Some individuals with intellectual disabilities (ID) have challenging behaviours that prevent them from having typical life experiences (Emerson et al., 2001; Sheehan & Hassiotis, 2017). The best practice of care for individuals with ID is to promote similar life experiences as those without ID (Bigby & Beadle-Brown, 2018; United Nations, 2006). Unfortunately, medical needs and challenging behaviours can form barriers, preventing these experiences (Emerson et al., 2001; Sheehan & Hassiotis, 2017). Challenging behaviour is behaviour that impedes the individual from learning skills, building relationships, or restricts them from engaging in typical activities in the community (Emerson et al., 2001; Sheehan & Hassiotis, 2017). Some challenging behaviours may include aggressive behaviours that can cause harm to themselves or those around them (Holden & Gitlesen, 2006). It is important the caregiver and individual with ID feel safe in their home, as safety in one's place of residence is essential to quality of life (Emerson et al., 2000; Lowe et al., 2007). Continuity of care and consistency are also important, however, changes in support staff become more frequent when individuals with ID exhibit challenging behaviours (Lowe et al., 2007). Therefore, the quality of life for an individual with ID can be influenced by how their challenging behaviour is managed (Antonacci et al., 1996; Bowring et al., 2019; Emerson et al., 2000; Hassiotis et al., 2020; Kroezen et al., 2019; Wittington & Burns, 2005; Wolkorte et al., 2019).

*Placement breakdown* refers to moving an individual from their current place of residence to another location that is better prepared to manage the challenging behaviour (Allen, 1999; Hemming, 1982; Phillips & Rose, 2010). These breakdowns can occur when the intensity

of challenging behaviour interferes with family functioning and demands specialized services (Allen, 1999; Beasley et al., 2018; Hemming, 1982; Phillips & Rose, 2010). The individual's challenging behaviour may result in multiple moves. Their new residence may impose greater restrictions that limit new experiences and contact with others due to their challenging behaviour. When intervention is required, care delivery can range from inpatient treatment to mobile crisis units (Curtis et al., 2017; McCombe et al., 2022). St. Amant, a facility providing services to individuals with ID, developed a behaviour stabilization program aimed at providing behavioural support to clients in crisis.

This thesis discusses behaviour stabilization services and their effectiveness for adults with ID who have challenging behaviours. It examines the use of a logic model and social validity measures to provide an in-depth analysis and evaluation of behaviour stabilization services. This research is comprised of two studies in which a logic model is co-constructed. The logic model is used to provide a detailed and thorough program evaluation of St. Amant's behaviour stabilization program to identify the program's strengths and weaknesses. The studies use both retrospective data collected over a 4-year period (2017-2021), and prospective data collected over the period of a year and a half from March 2021 to July 2022.

### **Intellectual Disabilities**

ID are conditions diagnosed prior to age 18 that impact the individual in a variety of situations due to their intellectual functioning and adaptive behaviour (American Association on Intellectual and Developmental Disabilities, 2013; Mahour & Panday, 2015; Ouellette-Kuntz et al., 2009). Intellectual and adaptive functioning is determined based on three categories, conceptual, social, and practical (Mahour & Panday, 2015). The conceptual category is based on problem solving and academic knowledge like mathematics and reading. The social category is

the ability to make social judgments and interpersonal connections through empathy, communication skills, and self-regulation. Finally, the practical category is the ability to conduct self-management activities involved in everyday living such as personal care, the ability to obtain and maintain a job, and managing money (Mahour & Panday, 2015). ID may also be accompanied by physical impairments (American Association on Intellectual and Developmental Disabilities, 2013).

ID prevalence has been gradually increasing (Stough, 2015). The worldwide prevalence of ID is around 1% (McKenzie et al., 2016; Maulik et al., 2011) with the highest prevalence in low-income countries and lowest prevalence in high-income countries (Maulik et al., 2011). The estimated prevalence of ID in Canada is .8% (McKenzie et al., 2016).

Due to medical and adaptive behaviour limitations, the majority of adults with ID do not live in their family home (Mirenda, 2014) and need assistance with daily living activities (Weiss et al., 2009). Either paid or unpaid supports are often required throughout the lifespan for an individual with ID (Heller et al., 1999; Ouellette-Kuntz et al., 2009; Weiss et al., 2009). Individuals with ID may need help with communication, handling money, social skills, and daily living skills like bathing (Maulik et al., 2011). Individuals with ID often require assistance with communicating and may resort to using challenging behaviours in an attempt to communicate their emotions and needs (Laermans et al., 2023; Maulik et al., 2011; Smith et al., 2020). Providing care and assisting individuals with ID in the development of social and daily living skills can be demanding and may be more difficult if the individual exhibits challenging behaviours (Weiss et al., 2009).

### **Challenging Behaviours in Persons With ID**

Challenging behaviour is a term used to describe behaviour by individuals with ID which impacts their own safety or the safety of others; alternatively, it is behaviour that is likely to prevent typical life experiences (Emerson et al., 2001; Sheehan & Hassiotis, 2017). The most common types of challenging behaviour include aggression towards themselves or others, destruction, socially unacceptable behaviours, non-compliance, and eating inedible objects (Holden & Gitlesen, 2006). Severe challenging behaviours can impact the individual's life, limiting activities in the community and their home (Antonacci et al., 1996; Bowring et al., 2019; Davidson et al., 1995; Davidson et al., 1999).

Reports of the prevalence of challenging behaviour for adults with ID vary, in part due to inconsistent definitions and methodologies between studies (Bowring et al., 2019; Jones et al., 2008). Bowring and colleagues (2019) conducted a recent systematic review on the prevalence of challenging behaviours using only current studies with clear definitions, and psychometrically evaluated tools. The results indicate approximately 17 to 20% of adults with ID display challenging behaviour (Bowring et al., 2019).

When individuals with ID are young, they typically receive various specialized supports (Gauthier-Boudreault et al., 2017; Weiss et al., 2009). As individuals with ID get older, they must transition to other services, however it can often be difficult to replace the services once received due to the lack of options (Gauthier-Boudreault et al., 2017). Available services may have long waitlists, putting additional responsibility on the caregiver (Weiss et al., 2009). This transition period is typically very difficult for both the caregivers and the individual with ID (Gauthier-Boudreault et al., 2017). During this transition, it is not uncommon for individuals

with ID to have an increase in challenging behaviours (Gauthier-Boudreault et al., 2017; Rapanaro et al., 2008).

Inadequately managed challenging behaviours can result in negative outcomes for adults with ID, as well as for caregivers (Bowring et al., 2019). Injury may occur to clients, caregivers, and others when caregivers lack adequate knowledge, training, and support to manage challenging behaviours (Bowring et al., 2019; Emerson et al., 2000). High staff turnover rates (Lowe et al., 2007) impact continuity of care and can make it difficult for organizations, because they are required to continuously train new employees (Hatton et al., 2001). Without adequate training, education, and support, caregivers may respond to individuals with ID in a manner that either maintain or worsen their challenging behaviours (McCombe et al., 2022; Wittington & Burns, 2005). Caregivers can also experience stress and burnout, which in turn impact their ability to provide a high standard of care (Bowring et al., 2019; Emerson et al., 2000; Wittington & Burns, 2005).

Challenging behaviours are managed in a variety of ways. Relatively intrusive methods include physical restraints, chemical restraints, and isolation, whereas other methods are evidence-based behavioural interventions which are less intrusive and more individualized (Bowring et al., 2019; Emerson et al., 2000; McLaren & Lichtenstein, 2019; Wolkorte et al., 2019). When challenging behaviour becomes a crisis, caregivers may be unaware of where to get help or may not have access to crisis stabilization services, resulting in emergency room visits (McCombe et al., 2022; Weiss et al., 2009). Emergency departments do not necessarily have staff with specialized training necessary to meet the needs of those with ID, which could exacerbate the challenging behaviours and could result in increased medication use (Chaplin, 2004; Lunsy, & Bradley, 2001; McCombe et al., 2022; Weiss et al., 2009).

Physical restraint, sedation, and seclusion were the most common ways caregivers managed challenging behaviour (Emerson et al., 2000). Despite the limitations and disadvantages of psychotropic medications, they are commonly used as a primary treatment for managing challenging behaviours in individuals with ID (Antonacci et al., 1996; Beasley et al., 2018; Brylewski & Duggan, 1999; Emerson et al., 2000; Laermans et al., 2023; McLaren & Lichtenstein, 2019). Emerson et al. (2000) noted that medications for the treatment of psychiatric disorders were not being used as intended. Instead, challenging behaviours and the circumstance surrounding the individual (setting, ambulation, and weight) were the primary indicators of medication use. If individuals with ID have been placed on psychotropic medications as a result of their challenging behaviours, it may negatively impact their ability to learn new skills (Harder et al., 1987). McLaren and Lichtenstein (2019) suggest psychotropic medications can be beneficial short-term measures, but behavioural, evidence-based interventions should be the primary treatment and the individual's care team should consider gradually reducing the medication, once the individual's behaviour is stable. Based on the views of 58 experts on ID and challenging behaviour, the consensus was the focus should be placed on non-pharmaceutical treatments (Laermans et al., 2023). In addition, when asking individuals who directly receive services for challenging behaviour there is a clear preference for behavioural interventions for challenging behaviours instead of the use of seclusion, restraint, or medications to reduce the challenging behaviours (Wolkorte et al., 2019).

### **Behaviour Stabilization Services**

Individuals with ID who engage in aggressive behaviour that results in imminent and significant threats to safety (their own, or the safety of others) are considered to be in a behavioural crisis (McCombe et al., 2022; Rubin et al., 2007). When these behaviours cannot be

managed effectively by caregivers in their typical environment, immediate crisis stabilization services are necessary (Antonacci et al., 1996; Davidson et al., 1995; Davidson et al., 1999; Owen et al., 2017; Rubin et al., 2007). Individuals at risk of a residential placement breakdown due to their challenging behaviours can receive immediate care when available, from a behaviour stabilization program, which is intended as a cost-effective solution (Curtis et al., 2017; Beasley et al., 2018; Wieseler et al., 2002).

The goal of a crisis plan is two-fold. The short-term objective is to provide immediate assistance through behavioural consultation and assessment, supply of direct services, and residential respite services (Wieseler et al., 2002). The long-term objective is to create a path for successful community integration. The goals are adequate physical and mental health, a safe, minimally restrictive environment which encourages choice, participation, and provision of adequate supports (Rubin et al., 2007; Wolkorte et al., 2019). There are various behaviour stabilization program service models for individuals with ID including outreach services, outpatient services, inpatient services, respite services, and capacity building (McCombe et al., 2022).

Outreach services are supports provided by multidisciplinary clinical teams to individuals with ID at convenient locations like the individual's home or school (Antonacci et al., 1996; McCombe et al., 2022; Rubin et al., 2007; Rudolph et al., 1998). Outreach services work collaboratively with clients' current supports including other service providers and their families (Antonacci et al., 1996; Beasley et al., 1992; Beasley et al., 2018; Curtis et al., 2017; Davidson et al., 1995; St.Amant Centre, 2002; Wieseler et al., 2002). Outreach services can also include crisis call centres and community mobile crisis teams (Beasley & Kroll, 2002; Beasley et al., 1992; McCombe et al., 2022; Rubin et al., 2007) and can assist the client and their care team

with discharge planning and post-discharge support following admission as an inpatient (Curtis et al., 2017; Beasley et al., 2018; Davidson et al., 1995; Hall, Parkes, et al., 2006). Outpatient services are similar to outreach services in that clients remain at their current place of residence while receiving care at the facility that offers the behaviour stabilization services (McCombe et al., 2022; Rubin et al., 2007).

Inpatient services are offered to individuals when their support team can no longer manage the individual's challenging behaviour in their current living situation. As a result, they are moved to short-term placements in either residential or hospital settings (Beasley et al., 2018; Davies et al., 2021; McCombe et al., 2022; St.Amant Centre, 2002). Clients with complex medical needs are moved to hospital settings when they require treatment involving additional medical care (Curtis et al., 2017). As consistency is an important factor in care for those with challenging behaviour, studies have shown that individuals may only require a short inpatient stay to stabilize their behaviour due to being in an environment rich with routine and structure (Curtis et al., 2017; Davies et al., 2021; St.Amant Centre, 2002).

Respite services may be another option for caregivers of individuals with ID exhibiting challenging behaviour. Respite involves providing a break to caregivers when handling a crisis or by scheduling a block of time for relief. Respite can be provided in various settings such as in the client's place of residence or at the facility providing the support (McCombe et al., 2022).

Capacity building is perhaps one of the most essential aspects of a behaviour stabilization program because once an individual's challenging behaviour has been stabilized, they require caregivers and support staff to help them maintain stability. This highlights the importance of expanding caregivers' knowledge through training and education. Teaching techniques to caregivers to provide them with skillsets to successfully manage challenging behaviours could

prevent the individual with ID from another crisis situation (McCombe et al., 2022). Capacity building can take many forms such as group training where staff learn through exercises and in-class training or individualized in-person training that can occur during staff meetings or during a shift (Curtis et al., 2017; McCombe et al., 2022; Wieseler et al., 2002).

### **Aspects of Successful Behaviour Stabilization Services and Barriers**

A systematic review of the literature by McCombe and colleagues (2022) found that common features of successful behaviour stabilization programs include capacity building, specialized service options, interdisciplinary clinical teams providing care, well-trained staff, high staff-to-client ratios, caregiver involvement, services provided to clients at their place of residence unless they had complex medical needs, and various community-based services to meet the individual needs of each client. The features identified by McCombe and colleagues (2022) are also consistent with previous literature discussing treatment in general for individuals with ID. Services provided to individuals with ID should include an interdisciplinary approach to provide appropriate comprehensive care (Hassiotis et al., 2020; Lunskey et al., 2014), family involvement to aid in intervention success (Morin et al., 2010), specialized service options and community-based services to support access to typical opportunities within the community (Beasley et al., 2018; Cobigo & Stuart, 2010).

McCombe et al. (2022) also described several barriers to effective behaviour stabilization services. Several studies indicated delayed discharges were a common problem, as many individuals receiving services had experienced placement breakdown and were unable to find a new home due to the limited availability of suitable community placements (Devapriam et al., 2014; Lunskey et al., 2010; McCombe et al., 2022; Richings et al., 2011; St. Amant Centre, 2002). McCombe et al. (2022) also indicated there is a shortage of qualified healthcare staff with

appropriate training to provide services to individuals with ID. This problem is exacerbated by the necessity of high staff-to-client ratios and staff turnover (Lowe et al., 2007; McCombe et al., 2022; Rubin et al., 2007). Interdisciplinary health care management is key to providing effective behaviour stabilization services to individuals with ID (Hassiotis et al., 2020; Lunskey et al., 2014; McCombe et al., 2022). Unfortunately, divided responsibilities and disconnects of clinical and financial resources challenge the provision of these services (McCombe et al., 2022). Finally, McCombe and colleagues (2022) discussed limited accessibility of services as an additional barrier, whether it be difficulties accessing services or caregivers not knowing about the behaviour stabilization services available to them.

Although there are various behaviour stabilization program service models, generally programs serve many people and are distinct from a single intervention for one person. A program encompasses many facets and requires substantial resources that are not consistently required for a single intervention. Typically, in comparison to a single intervention, more people are involved in providing services and additional steps are needed to continuously provide services. It therefore stands to reason that more complex methods of evaluation should be conducted to evaluate programs than is necessary for a single intervention.

### **Program Evaluation and the Logic Model**

Program evaluations have been used in the health care industry for many years to analyze different aspects of programs such as the goals, process, and outcomes, as well as to inform decisions about future change to program activities (Frechtling et al., 2006; Miller, 2017). Depending on the scope and purpose of the evaluation, decisions need to be made on what to include to best describe the program and its impact (Miller, 2017; Newcomer et al., 2015). Simple pre-post designs are often used to determine a program's effectiveness by examining

individuals' progress on goals, however this method often misses important aspects of how a program works and the overall outcomes (Miller, 2017).

A logic model is a tool that provides a framework to summarize key aspects of a program and how those elements interact and connect (Bucher, 2010; Frechtling, 2007; Frechtling et al., 2006; McLaughlin & Jordan, 2015; Miller, 2017; Newcomer et al., 2015). This tool can be used throughout the lifespan of a program from development and implementation to evaluation (Bucher, 2010; Frechtling, 2007; Hayes et al., 2011; McLaughlin & Jordan, 2015; Miller, 2017).

A logic model is often represented in pictorial form, however, models can also be presented in narrative or tabular formats (Frechtling, 2007; Hayes, 2011; Miller, 2017; Newcomer et al., 2015). Logic models are designed to include basic elements such as context, program structure and outcome structure (McLaughlin & Jordan, 2015). These elements can be further broken down into additional components such as inputs, activities, outputs, and outcomes, creating the general structure of a logic model (Bucher, 2010; McLaughlin & Jordan, 2015). Inputs can be defined as resources necessary for the program to provide services; activities are the steps completed to promote program outputs; outputs are the services the clients receive; and outcomes are the benefits of the service received by the clients (McLaughlin & Jordan, 2015). There are many variations of this framework, which may have additional components depending on the logic model's purpose for the program (Bucher, 2010; McLaughlin & Jordan, 2015).

A logic model has many uses: it can be used to aid in program development, implementation, evaluation, and as a communication tool (Bucher, 2010; Frechtling, 2007; Hayes et al., 2011; McLaughlin & Jordan, 2015; Miller, 2017). A logic model can be used to help outline the steps during program development that would be necessary to produce the anticipated desired outcome (Bucher, 2010; Hayes et al., 2011). A model can also be utilized for

program implementation to ensure process fidelity (Bucher, 2010). Utilizing a logic model for evaluations provides a framework to identify and clarify the specific data that should be measured and the intervals of data collection, and importantly, facilitates comparisons across programs (Frechtling, 2007). It can also identify issues in the process which can be used to later improve data collection and ultimately the processes utilized (McLaughlin & Jordan, 2015). Logic models are also a cost-effective method to use for evaluations (Hayes et al., 2011), as additional resources are not required like those needed for more experimental designs (Miller 2017). In addition, logic models can be used to facilitate communication by helping the managers of a program describe the many aspects of their program to funders and other stakeholders, including what resources are necessary, the processes used, and how they lead to the desired outcome (McLaughlin & Jordan, 2015; Miller, 2017). It also provides clarity about underlying assumptions about program operation (Hayes, 2011; McLaughlin & Jordan, 2015).

Logic models have limitations as well as benefits. The simplicity of a logic model can make a program easy for others to understand, but it may mislead stakeholders who don't understand the complexities and relationships within each component of the logic model (Chen et al., 2018; Onyura et al., 2021). It is therefore important for a model's developer to provide sufficient information to stakeholders, especially when a model is presented in a simplistic or pictorial form. A logic model may also fail to identify the undesirable outcomes of an intervention (Onyura et al., 2021). A possible solution to prevent neglect of undesirable outcomes is to supplement logic models with additional methods such as assessing the social validity of the program or intervention. Although logic models have limitations, these drawbacks can be minimized through appropriate knowledge translation and by supplementing logic models with other evaluation methods.

**Social Validity**

Social validity is the acceptability of an intervention's goals, methods, and outcomes to its consumers at all levels (Wolf, 1978; Schwartz & Baer, 1991). Methods of measuring social validity are varied which can include questionnaires, rating scales, and direct observations of an individuals' affect (Ferguson et al., 2019). Social validity is not meant to be the only method of a program evaluation, instead, its intent is to supplement an evaluation by providing additional information which is used to make program improvements (Ferguson et al., 2019; Schwartz & Baer, 1991). It is crucial, in many cases, to evaluate the social validity of a program to ensure the outcomes for consumers are positive, intended outcomes (Strain et al., 2012). It is important to include a wide range of individuals, not just direct consumers to thoroughly evaluate the social validity of a program (Ferguson et al., 2019; Schwartz & Baer, 1991).

Reviews have been conducted through the years to determine the trends of social validity assessments with articles published in the *Journal of Applied Behaviour Analysis* (Carr et al., 1999; Ferguson et al., 2019; Kennedy, 1992) and other behavioural journals (Huntington et al., 2023). A recent review conducted by Huntington and colleagues (2023) reports a substantial increase in the number of social validity assessments in intervention studies, especially from 2019 to 2020. Although there has been an increasing trend to include social validity assessments, they still comprise less than half of the articles Huntington and colleagues (2023) reviewed. Overall, the review conducted by Huntington and colleagues (2023) is consistent with previous reviews, there is a need for more research to include social validity assessments for the additional information it adds to the program evaluation (Ferguson et al., 2019; Huntington et al., 2023; Kennedy, 1992; Schwartz & Baer, 1991).

### **A Local Knowledge Need**

St.Amant is a not-for-profit community service agency for Manitobans with an intellectual disability, autism, or acquired brain injury. St.Amant's behaviour stabilization service is called St.Amant's Community Stabilization Service (CSS). Caregivers can access St.Amant's CSS when individuals they support are in crisis or are engaging in challenging behaviours that are no longer being managed effectively. St.Amant's CSS is individualized but generally includes: (a) development of a safety plan, (b) development of a behaviour management plan, (c) a structured, predictable daily schedule, and (d) staff/caregiver training.

An interdisciplinary clinical team from St.Amant provides outreach services that include a comprehensive clinical assessment for individuals who are at risk of a placement breakdown or losing their community supports due to challenging behaviour. The typical population served by CSS are adults with ID and complex medical needs. The individuals continue to live in their own home but receive an assessment and recommendations from the program's treatment team. Services are typically provided for 3 to 6 months (Curtis et al., 2017; St.Amant Centre, 2002)

In the course of their service development and recent strategic priorities, St.Amant has identified a need to comprehensively evaluate CSS, to better understand how to meet client needs and to guide future services. Any such evaluation should be informed by prior research, to help shape the methodology and to provide some comparison for evaluation outcomes. Given that the principal activities of CSS are outreach service and capacity building, prior research studies of stabilization services that include these components will now be examined.

### **Previous Behaviour Stabilization Service Evaluations**

The Mental Health Service for People with Learning Disabilities (MHSPLD) was a program developed in the United Kingdom to serve both inpatient and community populations.

The program's rationale, development, and features were described by Hall, Higgins, Parkes, Hassiotis, and Samuels (2006), and a program evaluation was reported by Hall, Parkes, Samuels, and Hassiotis (2006). The following summary draws upon the information in both papers and emphasizes the community outreach findings. The primary evaluation objective was to assess and compare clinical effectiveness of the service for inpatient and community clients, using outcome measures for overall functioning, psychiatric symptoms, mental health problem severity, and mental health needs (Hall, Parkes, et al., 2006).

Hall, Parkes, Samuels, and Hassiotis (2006) did not refer to a logic model framework but did provide information about typical logic model components. An interdisciplinary team (including psychiatrists, psychologists, occupational therapists, nurses, pharmacists, care managers, and community support workers) provided services in the community via virtual appointments, but no details were given about specific activities and interventions, EFTs devoted, or costs (Hall, Higgins et al., 2006). Capacity building in the community was identified as ongoing education for people working in mainstream services to teach them about individuals with ID and mental health issues (Hall, Higgins et al., 2006). Caregiver involvement was highlighted for those involved in the inpatient unit but little information about involvement was provided for those using the community service (Hall, Higgins et al., 2006; Hall, Parkes et al., 2006). Output data such as demographic information and diagnosis was analyzed, but only for a research recruitment sample of 19 inpatients and 18 community cases. The specific reasons for referral were not provided, only that all clients were determined to be in crisis. Other than assessing unmet needs, this study did not conduct social validity assessments of the program.

Hall, Parkes, Samuels, and Hassiotis (2006) provided detailed outcomes data using five standardized tools and a pre-post design. Despite lower inpatient functioning indicated by the

Health of the Nation Outcome Scales for People with Learning Disabilities (Roy et al., 2002), it was determined the inpatient group continued to improve more than the community group following discharge. The inpatient group was also more likely to have a change of residence following discharge. Overall, significant improvements were seen in numerous client outcomes such as psychiatric symptoms, overall functioning, reduced risk, and diminished unmet needs for both inpatient and community clients (Hall, Parkes et al., 2006).

The Birmingham Community Assessment and Treatment Service (BCATS) was another UK program consisting of inpatient, outreach, and day assessment service (Richings, Cook, and Roy, 2011). Information collected over a 2-year period was reported, including number of referrals (102), demographic and diagnostic information, placement breakdown information, length of stay, and client clinical outcome. Among those admitted, 37% were managed through outreach only, while 28% were managed through a combination of outreach and inpatient admission. Data from the outreach model, delivered for the first time in 2007-8, were compared to the prior year on inpatient-only service. The BCATS program with outreach was more effective than traditional services: placement breakdown, length of stay, and frequency of aggressive incidents were all significantly less in the newer program model. Health of the Nation Outcome Scales for People with Learning Disabilities (Roy et al., 2002) was also conducted both before and after program involvement. Improvement on this measure was shown for 64% of individuals.

Richings et al. (2011) did not refer to a logic model framework but did provide information about typical logic model components. Input information like space used and very general information about a multidisciplinary team was provided, but the exact team composition was not given. Service costs were not included. A detailed referral model was given, but

activities of what clinicians did, and when, were not included. Although they described day assessment, outreach, and inpatient assessment options in the BCAT program, they did not provide detailed information on the differences and similarities of each. Richings et al. (2011) provided very detailed information on outputs like demographic information, diagnosis, and reason for referral. They did not however provide details on recommendations made or details of the interventions used that led to the outcomes. Richings et al. (2011) provided a number of client outcomes including length of time in program, preservation of current placement, and the Health of the Nation Outcome Scales for People with Learning Disabilities (Roy et al., 2002). This study lacked any information on social validity.

Service Support Teams (SST) was a crisis intervention, community-based, behaviour support program developed in the United States (Owen et al., 2017). SST was used to increase capacity in the community while also limiting the costs related to hospital admissions, visits to emergency rooms, and pharmacies. SST provided outreach and capacity building services to direct supports and individuals with ID who also had a co-occurring mental illness. Phase 1 of the Owen et al. (2017) study explained the SST program by describing the characteristics of the individuals referred and services received. There were 421 individuals referred to the SST program. Phase 2 was a pre-post evaluation and compared the rates of hospital, emergency room, and pharmacy usage 12 months before and 12 months following a referral to SST for 109 individuals who received services. All 421 referrals could not be included in the second phase of the study because they did not meet the established service time criteria. The results of the second phase of the study showed an overall reduction in the number of hospital and emergency room (ER) visits. There was also a reduction in the proportion of individuals who required a

hospital or ER admission. Hospital and ER Medicaid liability cost also decreased. Pharmacy usage did not change significantly and there was a slight increase in Medicaid liability cost.

Owen et al. (2017) did not refer to a logic model framework but did provide information relevant to logical model components during both phases of their study. Input information included the Medicaid liability cost, some information on space used, and the type of professionals comprising the multidisciplinary team. Explicit information on all space used for the program was not included. In addition, the number and EFT breakdown of the multidisciplinary team was not provided. Activities of the program were identified, and each activity of the program was briefly described. Activities included observation/assessment, service planning, technical assistance, training, linkage, individual support, and operations. Although each activity was briefly described, specific information was not included for any of the activities identified. For example, details on the types of training, strategies developed for desired outcomes, how a service plan was modified, or the types of referrals (linkages) made to outside resources were not included. The process of determining which activities would be utilized for those receiving services is also not clear. Output information such as demographic information, diagnosis, and reason for referral were listed. As discussed above, outcome measures included rates of hospital, emergency room, pharmacy usage, and Medicaid liability cost. This study lacked information on social validity.

The Systemic, Therapeutic, Assessment, Resources, and Treatment (START) program was another US community-based program for individuals with ID with mental health needs (Kalb et al., 2019). The goal of the START program is to increase community capacity, promote least-restrictive services to improve people's lives, and to provide training to caregivers and direct supports. Previous studies have been conducted on START which showed promising

results, however the study conducted by Kalb et al. (2019) provided an updated evaluation of then-current services. A one-year pre-post design was used to determine the individual's mental health symptoms, rates of psychiatric hospitalizations, psychiatric emergency department visits, and caregiver evaluation of service experiences. The data collected was from multiple START programs. To be included in the study, participants had to have a diagnosis of ID or developmental disability, reside with a family caregiver, the ability to received Medicaid insurance, and be enrolled with START for a minimum of 6 months. Measures used included the Family Experiences Interview Schedule (Tessler & Gamache, 1995), provided before and after services, used to assess social validity of the program from a caregiver's perspective; the Aberrant Behaviour Checklist (Aman et al., 1985) administered before and after services to determine mental health symptoms; and urgent psychiatric service use which included psychiatric hospitalization and visits to the ER for mental health reasons assessed before and after the START program. The results indicated there were significant increases in perceived quality of service experience from caregivers, significant decrease on the Aberrant Behaviour Checklist (Aman et al., 1985) indicating fewer mental health symptoms, and a decrease in the overall number of visits/admissions to the ER and psychiatric hospitalization as well as a decrease in the number of people requiring visits/admissions.

Kalb et al. (2019) did not organize their evaluation of the START program through the use of a logic model framework, however, they did include some information on logic model components. Input information like program cost and spaced used was not provided. The types of professionals on their multidisciplinary team and their minimum educational requirements for each position was included. However, specifics of the number of staff and EFTs of each staff member were not included. Some activity information was provided about crisis prevention and

intervention, outreach, and medical/psychiatric consultation services. The study lacked specific activity information such as the types of strategies that were developed and used to produce client outcomes. Data was collected and amalgamated from three START teams, two teams provided services to individuals ages 6 and older and one team provided services to adults 18 years and older. It is possible more specific information about START was not provided due to their heterogenous sample. Although a link to their website was included in the article to provide more information on the START program, detailed and specific information about program processes and activities were not easily identified. Output information such as demographic characteristics and diagnosis were listed. Demographic information for caregiver participants was identified as well. Although the reason for referral to a START program was discussed generally, the breakdown of the reason for referral for the sample evaluated in the study was not provided. As discussed above, outcome measures included results from the Family Experiences Interview Schedule (Tessler & Gamache, 1995), the Aberrant Behaviour Checklist (Aman et al., 1985), and urgent psychiatric service use. Kalb et al. (2019) also evaluated social validity by assessing caregivers' perceived quality of service experience.

Beasley et al. (2018) conducted an evaluation of the Iowa START Program, a community-based program for individuals with ID and mental health needs. A prospective one-year evaluation was conducted and included data on 41 individuals served. This study was different from the previous studies conducted on START because most participants lived in a paid-support setting. This study also took place in a rural location in Iowa, where a START program had not yet been evaluated and provided a qualitative case analysis. A one-year pre-post method was used to determine changes in the use of psychiatric inpatient services and ER visits. The pre-post method was also used to determine changes in challenging behaviour utilizing the

Aberrant Behaviour Checklist (Aman et al., 1985). Overall, there was a reduction in the number of people who experienced a psychiatric hospitalization and ER visits. There was also a significant decrease in problem behaviour following the program. The case study demonstrated how the Iowa START program can be successful for a specific individual. Following the program, the individual receiving services had an overall improvement with their health, reduction in doctor's appointments, ER visits, and law-enforcement contact.

Similar to Kalb et al. (2019) and their evaluation of the START program, Beasley et al. (2018) also did not organize their evaluation of the Iowa START program with a logic model framework. Beasley et al. (2018) included some input information like the cost of services and the composition of the multidisciplinary team. The study reported on the staffing roles, the designation of each position, and described one role as part time, presumably implying the other roles were full time positions. Although there appeared to be one individual for most roles, it is unclear the number of START coordinators involved with the team. General activity information was supplied, such as the types of services provided. These were described as outreach, training, cross-systems crisis planning/24-hr crisis response, and consultation. The case study included additional information on a comprehensive service evaluation that was conducted and some of the recommendations provided after this evaluation. The recommendations described in the case study provide more detailed information about some of the START program activities, however it is unclear how similar or different the activities would be for all other clients served from the START program. Output information such as demographic information, and diagnosis were listed. The authors identified that problem behaviour was the primary reason for referral to START but aside from the case study did not specify the types of problem behaviour. The outcome measures, discussed above, showed overall improvement for both the 41 participants

and the individual described in the case study. Social validity was not measured in this study aside from the case study, where the support team working with the client felt better able to meet the needs of the client.

The studies cited above indicate that outreach behaviour stabilization programs can be successful for various groups of individuals. These types of programs have also been found to be more effective than traditional hospitalization to manage challenging behaviour in adults with ID (Beasley et al., 2018; McCombe et al, 2022; Richings et al., 2011). According to Beasley and colleagues (2018), hospitalization should be utilized as a last resort due to the expense and restrictive environment.

The studies discussed above are all examples of different behaviour stabilization programs that used similar structures and features. All the programs discussed used a service model that included outreach services and capacity building. In addition, they also included at least some of the characteristics identified by McCombe and colleagues (2022) as common features of successful behaviour stabilization programs. Despite identifying some common features, the literature is lacking in guidance on the best way to structure a program (McCombe et al., 2022).

All the studies above included some information about typical logic model components, but none of the authors made explicit use of a logic model. All the above studies included outcomes, but most gave limited information on inputs and activities. It would be beneficial if studies evaluating behavioural stabilization services utilized a logic model to break down all the elements of the program. This would provide the reader with a consistent and systematic way to understand the program and compare behaviour stabilization programs developed by different people/organizations.

**Purpose**

St. Amant recognizes a need to expand and evolve its CSS to meet growing demand and to serve its clients as effectively as possible (Curtis et al., 2017). The co-creation of a logic model with the CSS coordinator would be an important step to identify the areas of the program that should be changed, updated, or expanded to meet the growing demand. The organization is committed to evidence-informed planning and evaluation of all its services, but CSS has not been evaluated in over 15 years (Curtis et al., 2017; St. Amant Centre, 2002). It's therefore important to evaluate CSS with a detailed and systematic approach. This type of evaluation could benefit the organization and service providers administering the program allowing for informed decision making about the development or adjustment of their crisis stabilization service (McCombe et al., 2022).

There are multiple gaps in the literature to date. There is a need for more detailed and thorough program evaluations of crisis stabilization services (Bird et al., 1998; Davidson al., 1999; McCombe et al., 2022). Structuring an evaluation by using a logic model framework may guide other researchers to use a similar design. If a consistent method and design is adopted by other researchers, it would allow for a more thorough comparison of crisis stabilization programs. The inclusion of social validity measures from service-users to determine service quality is also lacking in the literature (Davies et al., 2021; McCombe et al., 2022; Richings et al., 2011). In addition, no studies to the writer's knowledge have applied a social validity approach to evaluating behaviour stabilization programs from both the perspective of the staff and the individuals receiving care.

The purposes of this research were to comprehensively evaluate St. Amant's CSS through the use and co-construction of a logic model and social validity measures, to identify the

strengths and weaknesses of CSS at St.Amant, and provide a list of recommendations to strengthen the program and improve service. This research contributes to the current, limited research in this area of study by providing a methodological improvement over prior work by using a logic model framework to evaluate a behaviour stabilization program.

### **General Method**

#### **Design**

A logic model framework was used to co-create a logic model for St.Amant's CSS (Newcomer et al., 2015). The logic model was used to provide a detailed program evaluation of CSS. The author measured the program's inputs, activities, outputs, and outcomes using both retrospective and prospective data. *Inputs* can be defined as resources necessary for the program to provide services. The inputs included staffing (number and composition), physical spaces used, and annual cost of service. *Activities* are the steps completed in order to promote program outputs. The activities evaluated included the service model used, the supervision model, and the referral and assessment process. *Outputs* are the services the clients receive. The outputs were determined by collecting demographic information and characterizations of the people served. Information collected includes the total number of clients served each year as well as personal characteristics such as age, sex, diagnosis, functioning level, living situation prior to referral, and the circumstances of referral to CSS. Other important outputs included were the number of external staff and caregivers trained, in addition to the details of the recommendations for intervention. Finally, *Outcomes* are the benefits of the service received by the clients. The outcomes included the change in frequency and type of serious incidents and recurrence of behavioural crisis. Social validity aspects of outcomes were determined by questionnaires asking service-users' supports and CSS staff about their experience and satisfaction with CSS. An

interview was also developed to ask service-users about their experience with CSS. CSS training evaluations were analyzed which asked about participants' experience with CSS training.

This thesis is divided into two studies. Study 1 describes the program's inputs, activities, outputs, and outcomes through the analysis of retrospective service data. Study 1 also utilized the retrospective data and interviews with relevant stakeholders to co-create a logic model of St. Amant's CSS. Analysis was also conducted to determine if CSS included common features of successful behaviour stabilization program as outlined by McCombe et al. (2022). Study 2 assesses social validity through the use of both prospective questionnaires and retrospective data. Study 2 supplements the logic model by summarizing the results from the questionnaires, which asked participants about both the activities and outcomes in CSS.

## **Study 1**

### **Method**

#### ***Participants***

There was no recruitment for the assessment of anonymized service data, and no interaction between the researchers and participants for this information. No active participation was required from service-users for this aspect of the research. Ethics approval was obtained from the Research Ethics Board at the University of Manitoba, Fort Garry Campus and from the St. Amant Ethics Board prior to data collection. Some of the outside organizations receiving CSS services for the people they support also required ethics approval to gather information.

There was a total of 76 adults with ID with challenging behaviour referred to CSS and 66 adults with ID with challenging behaviour who had received services from CSS from 2017-2021. The author had access to 45 individuals' anonymized referral information and 38 individuals' anonymized service-user information from 2017-2021. Due to the anonymization of the data,

some referral forms and some assessment forms could not be linked. The author will therefore report demographic information such as sex and age characteristics separately for those referred and those who received services. Based on the information provided by CSS on the 45 individuals referred to CSS, there were 27 male and 18 female individuals with an average age of 36.13 years. Based on the information provided by CSS on the 38 service-users, there were 25 male and 13 female service-users with an average age of 36.95 years. A total of 531 external staff and service-user's caregivers received group training from CSS from 2018-2021, information was unavailable for 2017-2018. As information about the people who are connected to the program constitute the outputs of the program evaluation, more detailed information is found in the output section.

Two organizations provided anonymized information for six service-users they supported. These individuals had received services from St.Amant's CSS between 2017-2021. One service-user only had challenging behaviours in public settings, therefore the organization could not implement CSS recommendations due to the restrictions caused by the COVID-19 pandemic. This resulted in usable data for only five individuals.

### ***Materials***

No materials or instruments were created to aid in data collection. All documents analyzed in study 1 were predeveloped documents by CSS and the St.Amant organization. To document the program's inputs and activities, the author received written documentation that included the CSS Manual, an informational PowerPoint presentation on CSS, a CSS brochure, and Human Resource records. To document the program's outputs and outcomes, the author requested and received anonymized retrospective service records from St.Amant during the period of April 1, 2017– March 31, 2021. These records included referral forms, assessment

reports, St.Amant's CSS annual reports, the CSS Coordinator's Excel tracking file of client data, the CSS Coordinator's Excel tracking file of training provided, and anonymized data collected by outside agencies providing care to the service-users. Throughout the data collection process, the author consulted repeatedly with managerial staff at St.Amant, including the Director of Clinical Services, the Psychology Coordinator, and the CSS Coordinator, in order to understand, clarify, and reconcile information provided in written documents. All information relevant to the current study was input in Excel to create databases. These databases were then used to analyze the data.

### ***Procedures***

**Logic Model.** A logic model (Appendix A) was co-constructed based on both the information received from St.Amant and interviews conducted with the Psychology Coordinator, Director of Clinical Services, and the CSS Coordinator. This logic model was used to provide an in-depth analysis and evaluation of CSS. The framework was used to identify and clarify the data that should be collected and measured as well as to determine process fidelity.

To address each of the logic model facets, the author obtained all available data over a 4-year period, from 2017-2021. CSS officially began April 1, 2018, but was transitioning from a similar service called the Community Living Stabilization Service (CLSS) from 2017-2018. CLSS provided both outreach and inpatient services. All data reported from 2017-2018 was from the CLSS outreach service, which later evolved to CSS. Limited data from CLSS was available, however if a data source included outreach data from 2017-2018, it was included in the analysis.

**Provenance of Data Sources.** The anonymized referral forms and assessment reports were obtained in paper format from a St.Amant Administrative Assistant. The referral forms were completed and faxed by the service-user's caregivers then printed and anonymized by a

St. Amant Administrative Assistant. The anonymized assessment reports were collectively written by the CSS staff conducting the assessments, with the CSS Coordinator combining all information into one document. A St. Amant Administrative Assistant printed all the assessment reports and anonymized some of them. The rest of the documents were anonymized by a St. Amant Research Assistant who was not otherwise involved with the research.

It is important to note the assessment report form was titled "discharge report" as it was the final formal document provided to the individual receiving services and their supports. However, the document was not necessarily provided at the time of discharge as CSS staff typically provided services for an additional three to six months following receipt of the document. This document provided assessment information and recommendations, and thus will be referred to as an assessment report to prevent confusion.

Although 76 individuals were referred from 2017-2021, the author only received access to 36 anonymized, hard copy referral forms. Although 66 individuals received services from CSS, the author only received access to 38 anonymized, hard copy assessment reports. The assessment reports include information about the referral. By cross-referencing general client information and referral dates, the author was able to link twenty-nine referral forms to assessment reports. Therefore, the author had access to a total of 45 individuals' anonymized referral information from 2017-2021.

The CSS manual and annual reports were written by the CSS coordinator. The author received a table summarizing statistics on client service and tracked client progress through the program. The CSS Coordinator's Excel tracking file of client data was created and maintained by the CSS Coordinator. Other resources such as the Excel tracking file of training, CSS brochure, and an informational PowerPoint presentation on CSS and the changes due to COVID were

developed and provided by the CSS Coordinator. Human Resource records were provided by an assistant in the Human Resource Department at St.Amant. They provided multiple PDF documents with job descriptions. Anonymized data collected by outside agencies providing care to the service-users was obtained from them by calling or emailing the organization and asking for the anonymized records. Some of the organizations also required the completion of their own ethics approval process to gather this information.

A data source hierarchy was developed to determine which data source to use when there were discrepancies. The CSS brochure, PowerPoint, Human Resource records, and anonymized data collected by outside agencies did not show any discrepancies when comparing to other data sources so were therefore not represented in the hierarchy. The anonymized referral forms and assessment reports were at the top of the hierarchy, meaning the author had the most confidence in these documents as they were directly from the client file. In addition, prior to providing the assessment report to clients and their support team, the assessment report was reviewed by CSS staff and the CSS Coordinator.

The CSS Coordinator's Excel tracking files of client data and training were next on the hierarchy as these were the documents that were used to determine the values provided on the CSS annual reports. The next data source in the hierarchy was St.Amant's CSS annual reports. These documents were the official documents provided by the CSS Coordinator to their superiors to provide an overview of CSS.

All of the resources described above were used to produce results regarding the various program evaluation facets as follows.

**Inputs.** The number and composition of CSS staff was identified from human resource records in addition to consultation with the CSS Coordinator. The physical spaces used to

provide services were identified through informal interviews with the Psychology Coordinator and the CSS Coordinator. The annual budget for the CSS program was identified through meetings with the Director of Clinical Services.

**Activities.** The service model and clinical supervision model was determined through St. Amant's CSS manual and consultation with the CSS Coordinator. The referral process was also identified through the CSS manual and confirmed through consultation with the CSS Coordinator. General information on the interventions used were discussed with the Psychology Coordinator and the CSS Coordinator.

**Outputs.** All relevant data from the referral forms, assessment reports, CSS Coordinator Excel tracking file of client data and training, and CSS annual reports were input into Excel spreadsheets. If data was missing it was retrieved by filling in the gaps with the next data source in the hierarchy of data sources. If discrepancies occurred, the provenance of data sources was referenced, and the hierarchy of data sources was followed. These databases were then used to calculate the values found in the outputs section.

Demographic information and characterizations of the people served were identified through anonymized referral forms and assessment reports. Excel was used to count the number of individuals with certain demographic qualities which was then divided by the total number of individuals within that dataset to get the average. The percent was also calculated by taking the number of people within a demographic category and dividing it by the total number of people within the dataset and multiplying it by 100. Percent values were rounded to the closest whole number. Values calculated included age, sex, diagnosis, functioning level, living situation prior to referral, and the circumstances of referral to CSS.

The values listed in the analysis of referral and service data section were calculated from the referral forms, assessment reports, CSS Coordinator Excel tracking file of client data and training, and CSS annual reports. The status of the referral each year (if the referral was pending, on hold, active, etc.) was identified from the CSS Coordinator Excel tracking file. All referral status values reported were calculated by adding the number of referrals pending over the 4-year period and dividing it by 4 to get the average per fiscal year. The average wait in days until service onset was determined from the CSS Coordinator tracking file. Average wait in days until service onset was calculated in Excel by subtracting the date of admission from the date the referral was received for each individual. These values were then added and divided by the total number of people in the data set to get the average wait in days until service onset. The average wait in days until service onset for those with detailed service data was from anonymized referral and assessment reports and compared to the CSS Coordinator tracking file. Average wait in days until service onset was calculated in Excel by subtracting the date of admission from the date the referral was received for each individual. These values were then added and divided by the total number of people in the data set to get the average wait in days until service onset.

The status of service-user files (if the service-user's file was pending, on hold, active, etc.) was from the CSS Coordinator tracking file. All service-user status values reported were calculated by adding the number of files pending over the 4-year period and dividing it by 4 to get the average per fiscal year. The number of people served was determined from the CSS Coordinator tracking file and compared to the CSS annual reports.

The average length of service for all service-users was determined from the CSS Coordinator tracking file. The average length of service was calculated in Excel by subtracting the date of discharge from the date of admission for each individual. These values were then

added and divided by the total number of people in the data set to get the average length of service. The average length of service for those with detailed service data was from anonymized referral and assessment reports and compared to the CSS Coordinator tracking file. Average length of service was calculated in Excel by subtracting the date of discharge from the date of admission for each individual. These values were then added and divided by the total number of people in the data set to get the average length of service.

Details of the recommendations for interventions used were identified from anonymized assessment reports. All necessary information was put into Excel which was used to create graphs and to help summarize the data. Percentages and averages were calculated in Excel. Percent values were rounded to the closest whole number.

The number of external staff and caregivers trained was obtained through the CSS coordinator Excel tracking file of training provided and compared to the CSS annual reports. Excel was utilized to calculate all reported values. Excel was also used to create graphical representation of the data.

**Outcomes.** The change in frequency and type of serious incidents and reoccurrence of behavioural crisis was obtained from outside agencies supporting individuals with ID receiving CSS. All data received was anonymous. Due to the limited data, statistical analysis could not be conducted. All data received was reported. As the assessment report was the last formal documentation provided to the individual receiving services and their supports, there was no follow-up documentation on progress or completion of goals following the assessment report.

**Data Analysis.** Data analysis in Study 1 was quantitative and descriptive, to suit the various components of the co-created logic model as described above and given the nature of the

data received from St.Amant. The majority of descriptive statistics produced pertained to the *Outputs* component, as described in the corresponding section under *Procedures*, above.

## **Results**

### ***Inputs***

The St.Amant Community Stabilization Service (CSS) was comprised of a Psychologist (.6 EFT), Psychology Technician (.7 EFT), Nurse Consultant (full time), Social Worker (full time), Psychiatrist (fee for service basis), Pharmacist (fee for service basis) and an Administrative Assistant (part time position, sharing funding from other programs) every year from 2018-2021. The CSS staff utilized their skills and experience in their respective disciplines to work within an interdisciplinary team that developed, modified, and implemented an individualized treatment plan for each service-user. The CSS staff were also responsible for providing training in their respective fields to the service-users' caregivers.

The social worker served as the CSS Coordinator and CSS Manager. They were responsible for overseeing day-to-day activities and operation of services. However, the reporting structure was that the Psychologist and Psychology Technician reported directly to the Psychology Coordinator, the Nurse Consultant reported to the Nursing Coordinator, and the Social Worker reported to the Social Work Coordinator. All coordinators in their respective fields reported to the Director of Clinical Services.

Services were provided at the service-users' homes. St.Amant CSS staff also utilized office space at the St.Amant facility to write reports. During the COVID-19 pandemic, St.Amant CSS staff worked from home when necessary. Individualized in-person training was also conducted at the service-users' homes. Group training was conducted at the St.Amant facility. During the pandemic, the group training sessions were conducted via video calls.

The approximate annual budget for CSS was \$539,000 each fiscal year, from April 1, 2018, to March 31, 2021. The annual per-client cost of service was not available. It is important to note the budget included funds for individualized care for each service-user as well as for building capacity in the community through training numerous service-users' caregivers.

### *Activities*

The CSS used a consultative model for providing services to individuals in the community. The CSS Coordinator was responsible for supervising all staff involved in providing CSS. The process of services (Appendix B) began with receipt of a referral form completed by the service-user's caregiver. A triage meeting was conducted to determine the service-user's priority on the waitlist, readiness of service-user and support network, and the amount of support the client required. Consent for services was then obtained by the relevant individuals.

Once clinicians were informed that consent had been obtained, they conducted their assessments. The social worker (CSS Coordinator) conducted interviews to determine the service-user's background and to determine the current state of the service-user, for example, their living situation and who they are involved with on a regular basis. The psychologist would complete functional assessment interviews with the service-user and/or relevant people in their lives. The psychologist and psychology technician also conducted direct observations and adaptive functioning assessments like the Adaptive Behaviour Assessment System (Harrison & Oakland, 2015) when necessary. The nurse consultant, psychiatrist, and pharmacist each conducted their own assessments based on their clinical opinion of what was necessary. These assessments typically included interviews with the appropriate people to discuss medical history and conducted assessments on the current medical state of the service-user. Each clinician would then write a section of the CSS assessment report based on their area of expertise which included

their findings from the assessment, their clinical impression, and their recommendations. The CSS report was developed by the CSS Coordinator by combining all the sections written by each of the clinicians to ensure the report was comprehensive and consistent. The CSS Team would then have a meeting about the report to discuss the recommendations to ensure there was no contradictory information and to determine the order of recommendations. The assessment report was titled the *discharge report* by CSS staff, however for the purposes of this thesis it will be called an assessment report based on the content and to reduce confusion. An assessment report included referral and admission information, where and how the information was collected for the report, mental health and psychosocial functions, health and pharmacological considerations, current resource requirements, clinical impression, and recommendations for the service-user's stabilization.

The finalized assessment report was discussed with the service-user's caregiver and an implementation plan was developed outlining support required from CSS. Each intervention was customized to the service-user and their specific needs. Interventions typically included caregiver training, development of a pharmacological and behaviour support plan, as well as ensuring the service-user had the resources they required, such as training materials or referrals to other specialists. The CSS staff met regularly with the service-user and their support team to evaluate the effectiveness of the recommendations in addition to the progress made by service-users and their caregivers.

Caregiver training was administered in two ways; individualized in-person training and group training at St. Amant. Individual training was specific to the service-user and was provided to the service-user's caregivers at the service-user's home. This typically gave service-users' caregivers the opportunity to observe CSS staff as they demonstrated a strategy from the

recommendations provided in the assessment report. Service-users' caregivers were also able to practice the strategy being taught with guidance and correction from CSS staff.

Group training was provided at St. Amant for larger groups of people, in a lecture format. Service-user caregivers along with other individuals in the organizations supporting service-users were provided with CSS training to encourage capacity building in the community. There were a variety of topics (Figure 1) offered for CSS group training including specialized behaviour management training and neurodevelopmental diagnoses.

Discharge or termination of services occurred upon completion of recommendations or demonstrated ability by the service-user and their support network to implement recommendations without further assistance which typically took 3-6 months. Discharge could also occur due to the withdrawal of consent or the service-user or their decision maker discharging themselves.

**Impact of COVID-19 Pandemic.** The COVID-19 pandemic impacted the way CSS was provided. Virtual services were arranged, when possible, which included providing group training and conducting assessments with service-user's caregivers remotely. During the 2020-2021 fiscal year, all training was provided virtually. In-person visits continued when necessary, however all CSS staff utilized appropriate personal protective equipment based on the provincial health guidelines when providing services in person. Based on the service delivery changes made during the pandemic, as discussed in the CSS 2020-2021 annual report, it is likely that CSS will continue to provide virtual services as an alternative or supplement to in-person services.

### ***Outputs***

**Demographic Information for Referred Individuals.** There were 76 individuals referred from 2017-2021. The author received detailed referral information about 45 (59%)

individuals from 2017-2021. The following is a summary of the anonymized information about the 45 individuals referred to CSS. There were 27 (60%) male and 18 (40%) female individuals who had been referred to CSS. The average age was 36.13 years with an age range of 18 to 72. Twenty-six (58%) individuals referred were at risk of placement breakdown and 22 (49%) had previous psychiatric hospitalizations due to challenging behaviours. The individuals referred to CSS had a wide range of diagnoses (Figure 2). Most individuals referred, with a total of 39 (87%) individuals, were diagnosed with an intellectual disability. There were numerous reasons listed for a referral to CSS (Figure 3), however 34 (76%) were referred due to physical aggression towards others.

**Demographic Information for Service-Users.** There were 66 individuals that received CSS from 2017-2021. The author received detailed information about 38 (58%) service-users from 2017-2021. This summary provides the anonymized information about the 38 service-users who received services during the analysis period. There were 25 (66%) male and 13 (34%) female service-users. The average age was 36.95 years with an age range of 18 to 72 years. Twenty-three (61%) were at risk of placement breakdown and 21 (55%) had previous psychiatric hospitalizations due to challenging behaviours. There were 10 (26%) service-users still living in their family home, 20 (53%) living at a residential shift-staffed group home, three (8%) were living in their own home, one (3%) was living in a home share, and 1 (3%) was in foster care. There were three (8%) service-users who had a placement breakdown by the time the assessment report was written.

The individuals discharged from CSS had a wide range of diagnoses (Figure 2). Thirty-two of the 38 individuals (84%) were diagnosed with an intellectual disability. Of the remaining 6 individuals who did not have the label of intellectual disability on their referral form or

assessment report, 4 of the 38 individuals (11%) were diagnosed with Down syndrome, 1 with fetal alcohol syndrome (3%) and 1 with autism spectrum disorder (3%); percentages were rounded to the nearest whole number. Although the CSS team did not administer cognitive tests, the cognitive abilities of the service-users were discussed in most assessment reports, based on prior testing or past reports. Common tests listed used to determine cognitive abilities included the Wechsler Intelligence Scale for Children, and Wechsler Adult Intelligence Scale. There were 25 individuals who scored within the “Extremely Low Range”, one within the “Borderline Range”, and 12 individuals did not have the cognitive test score available.

Adaptive functioning was also discussed in the assessment reports. Adaptive functioning was determined either by prior testing or by a member of the CSS team administering the Adaptive Behaviour Assessment System (Harrison & Oakland, 2015). All 38 individuals were considered to fall within the “Extremely Low Range” for adaptive functioning. There were numerous reasons for a referral to CSS (Figure 3), however 30 (79%) of the individuals discharged from CSS were referred due to physical aggression towards others.

**Analysis of Referral and Service Data.** The CSS received a total of 76 referrals from 2017-2021. The CSS received 10 referrals during the 2017-2018 fiscal year, 15 during the 2018-2019 fiscal year, 23 during the 2019-2020 fiscal year, and 28 during the 2020-2021 fiscal year (Table 1). Each fiscal year ran from April 1 to March 31. Based on the referrals from 2017-2021, there was an average per fiscal year of 5.25 new referrals pending, 0.75 on hold, 3.75 refused service, 0.5 withdrawn from service, 4.25 active, and 4.5 new referrals which resulted in discharge from CSS before the end of the fiscal year. Rereferral information from 2017-2021 was not available. Information was not provided for how many, if any individuals, received

services from CSS and were later referred to CSS again due to a reoccurrence of challenging behaviour.

The average wait in days from referral until service onset for all 76 individuals referred from 2017-2021 was 90 days. The average wait in days from referral until service onset per year was 144.9 days from 2017-2018, 66 days from 2018-2019, 94.13 days from 2019-2020, and 74.19 days from 2020-2021 (Table 2). The average length of service onset for the 38 individuals for whom the author had detailed service data was 93.03 days.

From April 1, 2017, to March 31, 2021, there was a total of 122 open files. Open files were the sum of all files pending, discharged, on hold, refused service, active, and withdrawn in a given fiscal year. There were 24 open files during 2017-2018, 25 open files from 2018-2019, 34 open files from 2019-2020, and 39 open files from 2020-2021 (Table 3). There was an average per fiscal year of 5.5 files pending, 1 on hold, 4.75 refused service, 2.75 withdrawn from service, 4.25 active, and an average of 12.25 files discharged (Table 3). The sum of active files and discharged files were equal to the total number of individuals who had received services. The CSS provided services to a total of 66 individuals from 2017-2021. The CSS provided services to 10 individuals during the 2017-2018 fiscal year, 13 during the 2018-2019 fiscal year, 23 during the 2019-2020 fiscal year, and 20 during the 2020-2021 fiscal year (Table 3).

The average length of service in days for all 66 individuals who received services from 2017-2021 was 205.96 days. The average length of service reported per fiscal year was 753.17 days from 2017-2018, 165.30 days from 2018-2019, 118.18 days from 2019-2020, and 113.67 days from 2020-2021 (Table 2). The author did not have access to the discharge dates for two of the 38 individuals for whom the author had received detailed service data. However, the average

length of service delivery for the remaining 36 of 38 individuals who received services was 129.94 days.

**Details of Recommendations for Interventions.** Overall, there were three types of recommendations provided in the assessment reports: 1) resource recommendations, 2) pharmacological recommendations, and 3) behavioural recommendations. The recommendations were also categorized as critical, necessary, and beneficial to aid the service-user's supports to prioritize which recommendations should be addressed first. The average length of the recommendation section in the assessment reports per service-user was 3.58 pages with a minimum of 2.5 pages and maximum of 5 pages. Although each assessment report was individualized for each service-user, there were similar recommendations that were consistently used across many of the service-users. The average length of the assessment report per service-user was 20.92 pages with a minimum of 16 pages and maximum of 26 pages.

The most frequent resource recommendations (Table 4) included the necessity of staff training on the service-user's diagnosis (92%), the necessity of staff training on behaviour management strategies (84%), the importance of changing the number of staff providing care to the service-user (50% total, 47% increase staffing and 3% decrease staffing), and the importance of increasing the service-user's community involvement to help create opportunities to make friends other than staff in an effort to develop their own natural support network. There was an average of 5.34 resource recommendations per service-user with a minimum of 2 and maximum of 9 per person.

Recommendations for referrals to other professionals were made for 89% (Table 5) of service-users. These recommendations were made if the service-user required care outside the expertise of CSS staff, or if the service-user required care for longer than the 6-12 months CSS

was able to provide. The most frequently recommended referrals were to occupational therapists (55%), dietitians (42%), foot care nurses (24%), and the St. Amant Feeding and Swallowing Nutrition Team (24%) comprised of speech and language pathologists, dietitians, and occupational therapists. There was an average of 4.45 referrals to other professionals recommended per service-user with a minimum of 0 and maximum of 11 per person.

Pharmacological recommendations were provided to 87% of service-users. The recommendations included a decrease in the dosage or to stop medications they were using (61%); add a new medication or increase the dosage of a medication they were using (37%); and medication should be changed to a different medication (47%). There was an average of 4.16 pharmacological recommendations per service-user with a minimum of 1 and maximum of 11 per person.

Behavioural recommendations for each individual were consultative in nature therefore, detailed, in-depth behavioural interventions were not used. Instead, general behavioural recommendations were utilized. Behavioural recommendations (Table 6) included various items, however the most frequently recommended included having either a written or pictorial daily schedule to increase consistency in the service-user's day (89%), a written support plan that service-user's supports could consistently follow (58%), increasing physical activity (63%), and providing service-users with clear and consistent expectations and boundaries (61%). There was an average of 7.39 resource recommendations per service-user with a minimum of 4 and maximum of 12 per person.

**Caregiver Training.** A total of 531 individuals received group training from CSS between 2018-2021. A total of 112 external staff and service-user's caregivers were formally trained in relevant procedures to aid in the behaviour stabilization of the service-user from 2018-

2019. The external staff were employed at three different organizations and participated in 17 training sessions. A total of 217 external staff and caregivers were trained in relevant procedures to aid in the behaviour stabilization of the service-user from 2019-2020. The external staff were employed at nine different organizations and participated in 21 training sessions. A total of 202 external staff and caregivers were trained in relevant procedures to aid in the behaviour stabilization of the service-user from 2020-2021. The external staff were employed at ten different organizations and participated in 30 training sessions. Graphical representation of the frequencies of training CSS staff provided caregivers over time can be found in Figure 1. Information was not provided for the number of caregivers and external staff trained from 2017-2018.

### ***Outcomes***

*Outcomes* are the benefits of the service to its users. St.Amant did not collect outcome data. The author contacted eleven external organizations supporting service-users to obtain anonymized outcome data. Two organizations agreed to provide anonymized information for service-users they support residentially, who had received services from St.Amant's CSS. The two organizations provided information for a total of six service-users. The author could not determine the pre-service and post-service intervals over which the organizations collected relevant data because the data was anonymous and limited information was provided, however all data was collected between 2017-2021.

One individual had challenging behaviours in public settings; however, it was not possible to implement recommendations to remedy this issue due to the pandemic and therefore will not be included in further analysis. The most common type of serious incident reported for the five remaining service-users was aggression towards themselves or others. There was no

change in number of serious incidents following discharge from CSS for two of the five service-users. At the time of intake, two individuals had daily serious incidents prior to CSS and none following discharge. There were three service-users who had a reoccurrence of a behavioural crisis after discharge from CSS. Staff in the organizations continued to use the CSS recommendations for four of the five individuals after discharge.

## **Discussion**

In Study 1, a logic model of CSS was co-constructed providing detailed information about the program, resources used, steps required to promote program outputs, services received, and benefits of the CSS program. The CSS logic model provides detailed information about each step of the program and all the components involved, in a logical and meaningful way. Previous studies that have conducted evaluations of behaviour stabilization programs have included many components of a basic logic model but have not organized their study with a logic model framework (Beasley et al., 2018; Hall et al., 2006; Kalb et al., 2019; Owen et al., 2017; Richings et al., 2011). Prior studies have generally emphasized outputs and outcomes, though output information was sometimes limited to a research sample rather than characterizing total program activity (e.g. Hall, Higgins et al., 2006). All prior studies identified, provided limited information about activities and inputs (Beasley et al., 2018; Hall et al., 2006; Kalb et al., 2019; Owen et al., 2017; Richings et al., 2011). This makes it difficult to determine what resources and activities were necessary to conduct the program.

A major contribution of the present study is therefore developing and demonstrating a significant methodological improvement over prior work. Using a logic model framework to evaluate a behaviour stabilization program provided structure to the evaluation. It allows information to be detailed in an organized and meaningful way while also identifying gaps in the

data. Future studies can use the current research as an adaptable guide to structure their evaluations of behaviour stabilization programs. This common structure can provide future researchers a clearer basis for behaviour stabilization program comparisons.

Study 1 had several other strengths. As noted above, the logic model made it clear when the appropriate information was included or missing. The development of the data source hierarchy in response to this problem was another strength of the procedures used. Another benefit of the logic model co-creation was that the depth of detail available for each model component was significantly greater than for any prior research.

The major limitation of Study 1 was the near absence of outcome data. This limits any conclusions about CSS effectiveness, and also precludes comparison of CSS effectiveness with that of the programs described in previous research. Another serious limitation was the receipt of information from different outputs data sources (i.e. those referred, and those who received service). This problem (described under *Outputs* in Method, above) was significantly mitigated through diligent cross-referencing.

This study had several other limitations related to the quality and/or quantity of service data available to analyze. One factor was that the research was conducted during the COVID-19 pandemic and St.Amant was short-staffed for an extended period of time. This reduced the availability of St.Amant staff to gather and anonymize retrospective data. As a result, the author was not able to access all the referral and assessment reports. The author only had access to the total annual budget rather than detailed financial information which resulted in a lack of data for calculations like cost-per-client per diems. CSS staff turnover, including the CSS coordinator during the research also impacted consistent administration of the CSS staff process satisfaction survey, and access to retrospective data including rereferral information. In addition, many

outside organizations providing care to service-users did not participate. This could again have been due to the challenges of staffing during the COVID-19 pandemic. As a result, only two organizations agreed to provide retrospective anonymized client outcome information.

Another limitation was the lack of formal documentation outlining goals accomplished prior to discharge. The CSS manual indicated discharge would occur following assessment of the recommendations and completion of goals, but in practice the assessment document was the last document provided to the service-user and caregivers. Similarly, preservation of service-user residence (i.e., a placement breakdown did not occur) could not be determined as no follow-up documents are produced following the completion of CSS. Standardized methods of client evaluation were not conducted before and after the program.

Notwithstanding these limitations, the present study provided a meaningful evaluation of CSS. McCombe et al. (2022) descriptively identified multiple features associated with successful behaviour stabilization program. These include interdisciplinary clinical teams, well-trained staff, high staff-to-client ratios, caregiver involvement, capacity building, specialized service options, if possible, services provided at place of residence, and community-based services. The results described above show that St.Amant CSS included all of these features. Further discussion of CSS strengths and areas for improvement will follow in the General Discussion section, below.

Study 2 was conducted in an effort to produce additional information about CSS based on satisfaction with the program and the processes used, thus adding information about the activities and outcomes elements of the logic model through the use of social validity data.

## Study 2

### Method

Study 2 assessed the social validity of St. Amant's CSS by using prospective questionnaires and retrospective data. Study 2 supplements the logic model by describing the results from the questionnaires, which asked participants about both the activities and outcomes in CSS. Activities provide process information on steps taken to promote program outputs. A program's outcomes are the benefits of the service received by the service-users.

Online questionnaires were sent to service-users, their supports, and CSS staff. These questionnaires asked about their experience with the process and outcomes of CSS. The author developed an interview to ask service-users about their experience with CSS, however the researcher did not receive any participants for the interview. Surveys had also been sent by the CSS coordinator to those who received training from CSS. A summary of CSS training evaluations was reviewed retrospectively. These evaluations asked participants about their experience following the completion of a CSS training topic. All information pertaining to CSS training evaluations were obtained from the 2020-2021 CSS Annual Report.

### *Participants*

**Service-Users.** Service-users were the persons with ID who had received CSS and had been discharged from the program during the period from 2017-2021. Although support team members who received training also used the service, the author used the term “service-user” exclusively to refer to the individual with ID receiving CSS. Eligible participants were those deemed by the CSS Coordinator to have sufficient communication abilities, either verbally or via a communication device to ensure they could complete an interview about their satisfaction with the service (Service-User Satisfaction Interview; Appendix C).

A single service-user participated. Although an invitation was sent for the service-user to participate in the interview, the service-user instead responded to the Family Consumer Satisfaction Survey (Appendix D). Personal characteristics were not shared on the questionnaire. The service-user was an adult, and only described the highest degree or level of school they had completed, which they indicated were "some special classes".

**Service-User Caregivers.** Service-user caregivers were either family members of a service-user, or service agency staff. There were two service-user caregiver respondents, one family member and one service agency staff. The family member respondent was a mother of a service-user who had started receiving services in the fall of 2020 and was still receiving services at the time of survey response, August 10, 2022. Their highest level of education was a bachelor's degree. The second respondent was a service agency staff who was the service-user's case manager. The case manager's highest level of education was a bachelor's degree. They had been working with the service-user for a year. The service-user they supported received services from CSS from June 2020 to December 2020.

**CSS Staff.** There were six CSS staff who responded to the questionnaire at least once. There were four CSS staff who responded during multiple timepoints and two CSS staff who only responded during one timepoint. Respondents included one Psychologist, one Psychiatrist, one Nurse Consultant and two Social Workers (the original service facilitator prior to resignation and the social worker who replaced the original service facilitator). One participant did not answer the question about their role in CSS and their duties. All but one participant had worked within CSS for multiple years, and all had multiple years of experience in their occupation.

**CSS Training Evaluation Respondents.** There were 29 people who completed the CSS Training Evaluation. Attendees may have included service-user caregivers, or other individuals

at the organizations supporting service-users. No active participation was required, as data was collected retrospectively through the 2020-2021 CSS Annual Report.

### *Instruments*

**Service-User Interview.** Service-User Satisfaction Interview (Appendix C) is an interview comprised of a combination of closed and open-ended questions asking service-users about their experience with CSS. The interview was scripted to ensure fidelity of administration. A video conferencing platform was chosen due to the challenges of meeting in person due to the COVID-19 pandemic.

**Consumer Satisfaction Survey.** Two online questionnaires were developed to ask about both family members' (Family Consumer Satisfaction Survey, for family members and/or substitute decision makers; Appendix D) and service agency staff's (Service Agency Staff Consumer Satisfaction Survey, for direct care staff; Appendix E) experience and satisfaction with CSS. The Consumer Satisfaction Survey had both open ended and 4-point Likert scale ("Strongly Agree", "Agree", "Disagree", "Strongly Disagree", "Not Applicable") questions.

**Process Satisfaction Survey for St.Amant CSS Staff.** The Process Satisfaction Survey (Appendix F) was an online questionnaire that asked about job satisfaction, ability to cope with job stressors, and their satisfaction with the CSS process. The Process Satisfaction Survey for St.Amant CSS Staff had both open ended and 4-point Likert scale ("Strongly Agree", "Agree", "Disagree", "Strongly Disagree", "Not Applicable") questions.

**CSS Group Training Evaluations.** The CSS group training evaluations consisted of a questionnaire asking participants about their experience and satisfaction with CSS training. The CSS Group Training Evaluation used a 4-point Likert scale ("Strongly Agree"(4), "Agree"(3), "Disagree"(2), "Strongly Disagree" (1)). The evaluation included items that asked if the material

was easy to understand and well organized, as well as if the content met their expectations, increased their knowledge on the subject, and if they would use the information they learned. All information obtained about the CSS Training Evaluations was from the 2020-2021 CSS Annual Report. A copy of the CSS Group Training Evaluations was not available.

### *Procedure*

**Service-User Interview.** Consent was sought from service-users who were their own decision makers, or from the service-user's substitute decision makers, as appropriate. Recruitment and consent materials sent to service-users who were their own decision makers, were modified to ensure the documents were written with more accessible language. Both consent forms requested permission to know the service-user's name, and to contact their service agency staff (which included direct care staff and managers responsible for providing care to service-users).

An administrative assistant at St. Amant, who was not a member of the research team distributed all recruitment packages to those who had received services from CSS on behalf of the author. The recruitment period for the service-user interview was from August 2021 to May 2022. Following recruitment, the service-user participant would be asked to complete a Service-User Satisfaction Interview (Appendix C) about their experience with the program via a video conferencing platform.

The service-user's willingness to participate would be monitored at all times. Interviews would be terminated in the event a service-user indicated they did not want to participate. Their decision would be respected, and the researcher would promptly end the video call. In the event of other signs of disturbance such as someone screaming, crying, or leaving the room, the interview would be terminated. A hard copy of the interview questions would be given to a staff

member providing care to the service-user to make it easier for them to see the question and for the staff to better assist the service-user. As there were no respondents, there is no additional information in the results about the Service-User Interview.

**Consumer Satisfaction Survey.** Recruitment materials were sent to family members/substitute decision makers of service-users, and to direct care staff, who supported the individual with ID (i.e., service-user) receiving CSS. The recruitment period for the Consumer Satisfaction Survey was from March 2021 to May 2022. The online questionnaires were developed to ask about both family members' (Family Consumer Satisfaction Survey; Appendix D) and service agency staff's (Service Agency Staff Consumer Satisfaction Survey; Appendix E) experience and satisfaction with CSS. All information provided in the Consumer Satisfaction Survey was automatically populated as an Excel document. All Excel documents were amalgamated into an Excel database for analysis. Qualitative written material from the survey are reported in the results.

**Process Satisfaction Survey for St.Amant CSS Staff.** Recruitment letters were sent to all staff employed by St.Amant that provide stabilization services. The informed consent process was embedded in the Process Satisfaction Survey (Appendix F; see below) which also explained that respondents who completed the survey have provided consent to participate. All data from the Process Satisfaction Survey was input into Excel. All calculations for average, median, mode and range were conducted through Excel. Qualitative written material from the survey were reported in the results.

The Process Satisfaction Survey (Appendix F) was administered via email by the CSS Coordinator at five different timepoints (March 2021, June 2021, December 2021, March 2022, and July 2022). The same CSS staff member could respond to the online survey at all timepoints

if they remained employed with CSS throughout the course of the research. If multiple Process Satisfaction Surveys were received from one individual, their ratings were averaged to produce values to include an overall assessment of process satisfaction across all respondents. Multiple Process Satisfaction Surveys received from one individual were also evaluated to identify trends over time.

**CSS Group Training Evaluations.** There was no recruitment for the assessment of the CSS training evaluations, and no interaction between the researchers and participants for this information (i.e., no active participation was required for this aspect of the research). The CSS group training evaluations consisted of a questionnaire. The questionnaire was administered via email to all training attendees in September 2020, by the CSS Coordinator, following the completion of each training topic. A summary of the results was written in the 2020-2021 CSS Annual Report. All information pertaining to the training evaluations was obtained retrospectively from the 2020-2021 CSS Annual Report. A copy of the CSS Group Training Evaluations and the raw data was not available.

**Data Analysis.** There were no respondents for the Service-User interview and very few respondents for the Family Consumer Satisfaction Survey, the Service Agency Staff Satisfaction Survey, and CSS Staff Process Satisfaction Survey. As a result, in depth statistical analysis could not be conducted. Some qualitative information from these surveys were reported, for example direct quotes about their experience. Due to the limited number of respondents, an interpretation of the results in terms of summarizing common responses from the open-ended questions into themes could not be completed. When possible, averages, medians, and modes were calculated. The raw data for the Family Consumer Satisfaction Survey can be found on Appendix G and the raw data for the Service Agency Staff Satisfaction Survey can be found on Appendix H. The raw

data was unavailable for the CSS Group Training evaluations, only the information in the CSS Annual report was provided. As a result, additional analysis was not possible. All information collected has been reported in the results.

CSS Staff participants who completed the CSS Staff Process Satisfaction Survey were sometimes identified as participant 1, 2, etc. in the results. Detailed information on each participant linking them to their background is not provided as there were only 7 positions within the CSS. Anonymity would be compromised if occupation or other demographic information were linked with the participant number.

## **Results**

### ***Family Consumer Satisfaction Survey***

The first respondent to the Family Consumer Satisfaction Survey was a service-user who had directly received services from CSS. Although an invitation was sent for the service-user to participate in an interview, the service-user instead responded to the Family Consumer Satisfaction Survey. There is limited information on how this happened as participants who complete the Consumer Satisfaction Survey are anonymous. It is however possible a caregiver provided the service-user with the link to the survey. The service-user indicated the most important goals and the reason for accessing CSS included reduced anxiety, improved and stabilized mood, improved physical health, improved personal hygiene, improved sleeping habits, improved eating habits, improved staff training, and increased activity engagement. They indicated that they were consulted about the goals before the program began, and that the goals did not change after intake. They also indicated that their goals were not addressed through services. When asked "Are the recommendations from Behavioral Stabilization staff still being

implemented?", the participant responded, "I never attended any program yet". In addition, many of the questions about CSS were responded to as not applicable.

The second respondent to the Family Consumer Satisfaction Survey was a family member participant, who identified as a mother of a service-user. They indicated the most important goals that led to the referral included reduced aggression, reduced suicidal ideation, reduced anxiety, improved and stabilized mood, improved physical health, improved personal hygiene, improved sleeping habits, improved eating habits, increased activity engagement, medication changes, and advocacy for better medical treatment including appropriate diagnosis for medical conditions instead of psychiatric drugging. The mother agreed that CSS procedures provided to help manage their family member's challenging behaviour required an appropriate amount of time, effort, and/or discomfort and that adequate instructions were provided. They also strongly agreed that they were satisfied with the personnel who delivered the program and the recommendations provided are still helpful.

They agreed that they were satisfied with the results, the most important program goals had been achieved, and they now feel better prepared to support their family member because of the training provided by CSS. In addition, they strongly agreed to the service making a meaningful difference to their family member's life, and that they would recommend the services to other caregivers. The mother indicated they felt the CSS team worked very well with other professionals outside St. Amant. The recommendation made to improve behaviour stabilization services was for service-users to have better access to a "Medical doctor who can diagnose if the behaviours are caused by physical medical issues such as infections, GI concerns, seizures etc..." however also indicated that "CSS assisted us in getting an appropriate GP who was able to start changes and diagnose".

*Service Agency Staff Consumer Satisfaction Survey*

The single service agency staff participant identified as a case manager, indicated that the most important goals that led to the referral included reduced aggression, reduced self-injurious behaviours, reduced anxiety, the development of coping skills and a daily routine, improved and stabilized mood, improved physical health, improved sleeping habits, and medication changes. The case manager agreed that procedures provided to help manage the service-user's challenging behaviour required an appropriate amount of time, effort, and/or discomfort, and that adequate instructions were provided. The case manager strongly agreed they received adequate instruction to implement the behaviour management procedures and stated "the clinicians provided instructions that were clear and easily to follow for staff. As this participant was new to the agency and moved in at a time of active crisis, it was important that the information and instructions/procedures were clear and easy to follow. The CSS team was invaluable in terms of providing specific training and directions". The case manager also strongly agreed they were satisfied with the personnel who delivered the program, and the recommendations provided are still helpful.

They strongly agreed that they were satisfied with the results, the most important program goals had been achieved, the service made a meaningful difference to the service-user's life, and they would recommend the services to other caregivers. They also agreed that they now feel better prepared to support the service-user because of the training provided by CSS. The case manager indicated the recommendations from CSS staff were still being followed. They also indicated they felt the CSS team worked very well with other professionals outside St. Amant and were able to refer the service-user to an appropriate doctor and medical team.

### *CSS Staff Process Satisfaction Survey*

The CSS Staff Process Satisfaction Survey included 21, 4-point Likert scale questions. The questions were divided into three subsections for analysis: questions 1-6 pertained to job satisfaction, questions 7-9 pertained to coping with job stressors, and questions 10-20 pertained to satisfaction with the process of CSS, although the sections were not labeled for participants. Question 21 asked about their satisfaction with their employment during the COVID-19 Pandemic. The average, median, and mode were calculated for the Likert scale questions on the CSS Staff Process Satisfaction Survey.

To summarize ratings across the 6 participants, the author first averaged the item ratings within participants who answered the item at multiple timepoints. Ratings ranged from 1 (“strongly disagree”) to 4 (“strongly agree”). The average rating given for job satisfaction items was 3.05, with a mode and median of 3. The average rating for the ability to cope with job stressors items was 3.08, with a mode and median of 3. Satisfaction with the process of CSS items had an average rating of 3.20, with a mode and median of 3.

The highest rated items were "the behaviour stabilization service team had adequate knowledge/skills", "overall, I was satisfied with how the behaviour stabilization services were delivered", and "the services we provided made meaningful differences in the lives of the clients we support" with averages of 3.58, 3.65, and 3.51 respectively. The lowest rated items (i.e., with a ranking less than 3 “agree”), included "I was satisfied with the opportunity for advancement" (2.29), "my satisfaction with my employment as part of the stabilization service has not been impacted by the COVID-19 pandemic (2.68), "I have received useful training to help cope with job stressors" (2.83), "in general, there was an adequate amount of time training caregivers" (2.94), "the behaviour stabilization service team had adequate material resources" (2.97), "I felt

the caregivers of the client were competent and confident in their abilities, following the training provided by the behaviour stabilization team" (2.97), and "I am satisfied with communication among the behaviour stabilization service team" (2.99).

CSS staff answered the questionnaires at up to five timepoints: March 2021, June 2021, December 2021, March 2022, and July 2022. The average satisfaction over the five timepoints varied with timepoint 3 (December 2021) being the lowest (Figure 4). The mode and median over time were consistently 3 ("Agree") with the exception of timepoint 1 (March 2021), where the mode and median varied between 3 ("Agree") to 4 ("Strongly Agree").

Although most participants indicated an overall satisfaction with their job, the process of CSS, and their ability to cope with job stressors, some participants indicated their dissatisfaction by rating items as "Disagree" or "Strongly Disagree" across multiple timepoints. Participant 2 responded "Disagree" or "Strongly Disagree" at two different timepoints to items pertaining to pride in their job, appropriate work/family balance, the manageability of their work stress, sufficient training received to help with job stressors, fairness of work distribution, and job performance feedback. Participant 3 responded "Disagree" at two different timepoints that caregivers of the service-users were competent and confident in their abilities following training provided by CSS. Participant 1 responded "Disagree" at four different timepoints that they had received useful training to help cope with job stressors, Participant 2 responded either "Disagree" or "Strongly Disagree" to the same item at three different timepoints. Participant 2 responded "Strongly Disagree" and Participant 3 responded "Disagree" at two different timepoints to their satisfaction with communication between CSS staff. Four of the five participants indicated their satisfaction with employment had been impacted by COVID-19, two of these participants indicated they were impacted over multiple time periods.

Participants were also given the opportunity to complete three open-ended questions, including comments on the impact of COVID-19, the opportunity to expand on previous ratings, and how CSS could be improved. Four participants expanded on the first open ended question, regarding how COVID-19 had impacted their job satisfaction; three of the four participants responded to this question over multiple timepoints. All four stated that communication had suffered. According to CSS staff, this has resulted in a “negative impact on team togetherness and ease of informal consultation and communication”. CSS staff also mentioned that COVID-19 impacted in-person assessments, leading to a limited understanding of the person and agency being supported. Finally, one participant indicated “COVID-19 changed the role that [they] have on the team ... [from a role that] was very diverse and filled with unique opportunities to support people in the community ... to remote work, working alone at home, and assessing people virtually”.

Three participants commented on their ratings from a previous timepoint. One participant stated they had “received training on coping with stressors, but not necessarily from St.Amant”. Another participant indicated the importance of “at least 6 weeks’ vacation to help ensure work/life balance and continue to stay well”. Finally, a participant explained that the CSS staff “provide very good education to the caregivers BUT their competency and skill development are very dependent on other factors such as their own internal motivation and desire to learn, the community agency's behavioural, and perceived support in the caregiver's learning, and the perception of being coerced to have to learn new skills”.

The last open-ended question asked participants to comment on how the CSS could be improved. Five of the six participants had suggestions, which included increased staffing such as adding additional nursing supports, an occupational therapist to the CSS team, and developing a

follow-up service to prevent getting referrals from the same individuals due to a reoccurrence of challenging behaviour following discharge. Another recommendation made by CSS staff was increased capacity building in the community. Providing education and training to health care professionals who work with individuals with ID is very important because “typically hospitals use a punishment system to control behaviour (medication, seclusion rooms, taking away privileges)” and the hospitals have “little programming available to help [individuals with ID] return to community”. One of the CSS staff participants also recommended that newly hired CSS staff have an increase in training/support when they are less familiar with stabilization services or working on an interdisciplinary team.

### ***CSS Group Training Evaluations***

Training evaluations were administered via email to all attendees, by the CSS Coordinator, following the completion of each training topic. The administration of the 4-point Likert scale (“Strongly Agree”(4), “Agree”(3), “Disagree”(2), “Strongly Disagree” (1)) training evaluations began September 2020. All information pertaining to the CSS training evaluations was obtained from the 2020-2021 CSS Annual Report. Evaluations were sent to 202 attendees during the 2020-2021 fiscal year. CSS staff received 29 survey responses (response rate of 14%). There were 24 (83%) attendees who strongly agreed that the program content was easy to understand. There were 27 (93%) attendees who strongly agreed that the program content enhanced their knowledge and that the content met their expectations. There were 25 (86%) attendees who strongly agreed the content was well organized, and 28 (97%) of the attendees strongly agreed they would use the information they had learned in their role. The annual report only provided information on those who had strongly agreed to the statements on the survey.

## Discussion

Study 2 evaluated the social validity of CSS through the use of both prospective questionnaires and retrospective data. Multiple stakeholder groups were given the opportunity to share their level of satisfaction with CSS outcomes and processes, as well as to comment on how the program could be improved. Respondents, including a family member, a case manager, CSS staff, and those who received group training, were generally satisfied with these aspects of the program.

As with Study 1, the major contribution of the present study is methodological. The author developed and field-tested social validity instruments designed for an outreach stabilization service, thereby demonstrating a significant methodological improvement over prior work. Consistent with recommendations by Schwartz & Baer (1991) and others, the present assessments were designed to solicit information from a variety of stakeholders, and about multiple components of the program logic model (notably activities and outcomes).

Previous evaluations of outreach behaviour stabilization programs generally failed to seek social validity information (e.g. Hall, Higgins et al., 2006; Hall, Parkes et al., 2006; Richings et al., 2011), or if they did it was limited to certain stakeholders or to particular aspects of the program (e.g. Kalb et al., 2019). The social validity of a program is important because it is necessary for the longevity of a program (Carter & Wheeler, 2019; Schwartz & Baer, 1991). If a program is deemed not socially valid, stakeholders will no longer use it, may avoid it, or could even try to oppose program delivery (Carter & Wheeler, 2019).

The major limitations of Study 2 were the low response rate to the prospective questionnaires and the lack of access to the original CSS Group Training evaluation documents. Both circumstances precluded the use of statistical analyses beyond basic descriptives for the

training evaluations. Responses from the service-user, family member, and service agency staff may not be a representative of their respective stakeholder groups.

A further limitation was that one of the two people who completed the Family Consumer Satisfaction Survey was a service-user. The instrument was not designed for service-users, which limited the relevance of information collected. It also appeared that the service-user respondent may have been referred to the program but had not received services yet as they responded to one of the open-ended questions with "I never attended any program yet". They indicated that their goals were not addressed through services, but this was presumably because they hadn't received them yet. It is possible the CSS Coordinator incorrectly identified this individual as already receiving services when they had only been referred. Another possibility was that the service-user was confused. The Family Consumer Satisfaction Survey was not intended to be used with a service-user and the language used may have been inaccessible to them.

The CSS Group Training Evaluations were completed by 29 people. This sample size is only 14% of those who received the survey and was presumably self-selected. A copy of a blank questionnaire and the raw data was unavailable, limiting the ability to provide more detailed analysis. The information provided about the training evaluation were only from the 2020-2021 CSS Annual Report. This limited information does not provide important information like how many questions were asked, the content of each question, and if there were any negative findings or areas identified for improvement.

Researchers conducting stabilization service evaluations in the future should consider adding social validity measures that include diverse stakeholders and that address multiple program aspects. To address the limitations encountered in Study 2, effort should also be made to recruit sufficient and representative samples.

### **General Discussion**

The purposes of this research were to comprehensively evaluate St. Amant's CSS through the use and co-construction of a logic model and social validity measures, to identify the program's strengths and weaknesses, and to develop a list of recommendations to strengthen the program and improve service. The strengths of the program identified included active capacity building, specialized service options, interdisciplinary clinical teams, well trained staff, and services provided at place of residence and in the community. Areas for program improvement (Appendix I) include collecting outcome data, increasing time for implementation of CSS recommendations and follow-up, addressing CSS staff burnout by providing additional resources, increasing the type of positions and number of CSS staff, standardizing and streamlining operational components of the program, providing additional training to build capacity in the community, and investigating the development of a best practice manual to provide to outside organizations. Some discussion of these recommendations follows.

#### **CSS Program Strengths**

CSS program strengths have been described based on the common features of successful behaviour stabilization programs identified by McCombe et al. (2022), as previously noted in this thesis. It is important to mention, although the literature lacks guidance for how to best organize and implement a behaviour stabilization program, McCombe and colleagues (2022) identified common program features of successful behaviour stabilization programs. As this is the only review known to the author which provide recommendations of elements to include, a discussion the CSS program strengths are based on this information.

The following features identified by McCombe et al. (2022) were included in St. Amant CSS: interdisciplinary clinical teams, specialized service options, capacity building, and services

provided at place of residence and in the community. St.Amant CSS has a well-trained interdisciplinary team comprised of a Psychologist, Psychology Technician, Nurse Consultant, Social Worker, Psychiatrist, Pharmacist, and an Administrative Assistant. Each CSS staff is specialized and well trained in their field and are able to provide well rounded recommendations for care as seen by the variations of recommendations provided in the assessment reports. Individualized services were provided including assessments and recommendations specific to the individual with ID in crisis. Capacity building was conducted in multiple ways, providing general training to supports in the community and providing individualized training for the supports of the individuals with ID referred to CSS. During the pandemic the majority of training was conducted virtually. This change in service had the unexpected benefit of training becoming more accessible to rural caregivers, and saved caregivers time and resources as training could be provided at home and no travel time was required. As CSS is an outreach service, they provide services at the service-user's place of residence. McCombe et al. (2022) determined that many of the behaviour stabilization programs evaluated provided services outside the client's home. This can be problematic as generalization of skills from other environments can be challenging for some with ID, indicating services provided to individuals in their typical environment would be beneficial (McCombe et al. 2022). Behaviour stabilization services provided to individuals with ID at their place of residence have been shown to be more effective and less expensive than continuous emergency room visits, in-patient behaviour stabilization services, and extended psychiatric stays (Bird et al., 1998; McCombe et al., 2022; Richings et al., 2011; Sheehan & Hassiotis, 2017).

As an outreach program, CSS could not directly control service-user staff-to-client ratios, service-user direct staff training, and support network involvement however, the assessment

reports indicated that CSS staff provided recommendations that include these elements. For example, results indicate that 92% of the assessment reports made recommendations for caregivers to receive CSS training on the service-user's diagnosis, and 84% recommended CSS's training on behaviour management. CSS also provided recommendations on service-user staff-to-client ratios, with 47% of the assessment reports recommending an increased number of staff providing care to the service-user. St.Amant CSS staff also encouraged the support network and caregivers of the individual with ID in crisis to attend CSS meetings as well as system meetings. The results from this research showed that 26% of the assessment reports recommended that service-users regularly schedule systems meetings. This also aligns with suggestions made by McCombe et al. (2022), to reduce divided systems by having regularly scheduled meetings with the clinicians and supports for a more collaborative and comprehensive treatment plan.

### **Recommendations to Improve CSS**

#### ***Address Staff Turnover and Burnout***

Increased staffing for CSS may be appropriate based on the results of this research. Hiring additional staff may help with burnout and assist with healthy work/life balance in addition to being better able to support the service-users. When asked on the CSS Staff Process Satisfaction Survey, Participant 2 indicated they disagreed and strongly disagreed at two different timepoints that the distribution of work was fair. Some additional recommendations from CSS staff included hiring more nursing supports and adding an occupational therapist to the CSS team. The latter recommendation was supported by over 50% of the assessment reports, which indicated a referral to an occupational therapist should be made.

An increase in training for coping with work stressors, and additional time off may also be appropriate based on the results of this research. The average score for the question "I have

received useful training to help cope with job stressors" on the CSS Staff Process Satisfaction Survey was 2.83. Participant 1 responded "Disagree" at four different timepoints and Participant 2 responded either "Disagree" or "Strongly Disagree" to the same question at three different timepoints. Participant 2 also indicated they disagreed with the statements "the stress I experienced related to my job was manageable" and "I maintained a healthy balance between work, family, and relationships" at two timepoints. One participant indicated they had received training on coping with stressors, but that the training was not provided by St. Amant. Finally, a participant indicated they would require a minimum of 6 weeks' vacation to ensure an appropriate work/life balance. These results indicate adequate staffing, training, and time off are essential for CSS staff to cope with job stressors and to prevent burnout.

Similarly, turnover and burnout for caregivers of service-users were also a concern. Recommendations in 47% of the assessment reports indicated there should be an increase in the number of staff supporting service-users. Although CSS already recommends adequate staffing and training to outside organizations, there may be a further capacity building role for CSS to help organizations be better prepared when staff turnover occurs. Due to the high turnover rate, receiving one time training from CSS may not be sufficient. The results indicated 92% of assessment reports recommended staff training, and 29% recommended the development of a plan to train new staff due to high turnover. The development of a CSS train-the-trainer program would help organizations train new staff without needing further training from CSS. With well-trained new staff, it would also have the potential to prevent new referrals to CSS and build capacity within the organization.

***Increased Capacity Building in the Community***

One of the recommendations made by CSS staff from the CSS Staff Process Satisfaction Survey was for CSS to increase and expand their training to include health care professionals who work with individuals with ID with challenging behaviours. The CSS staff indicated hospital staff would greatly benefit from CSS training as they have little programming available to help individuals with ID, and they primarily utilize punishment to control behaviour. CSS training for other professionals who may encounter individuals with ID with challenging behaviour would also be beneficial. For example, a recommendation from a service-user's assessment report suggested CSS staff could help the service-user's caregivers develop training materials for the RCMP with the end goal of the RCMP being more knowledgeable on what actions they can take to deescalate a situation where an individual with ID has challenging behaviour. The literature suggests there is a lack of training for professionals who may encounter individuals with ID with challenging behaviour (Brown et al., 2012; Cobigo & Stuart, 2010; Lunskey et al., 2007; Morin et al., 2010; Rivard et al., 2020). This emphasizes the importance and benefit of CSS training and capacity building in the community.

***Improve CSS Fidelity and Data Collection***

CSS should attempt to standardize the administrative aspects of the program to allow for effective and continual evaluation and monitoring. There were multiple versions of referral forms asking different questions. A standardized referral form would benefit evaluations and help staff develop a more uniform assessment report process. It could also be beneficial for CSS to utilize a tool like the Brief Family Distress Scale to have a more standardized method to aid in triage decisions (Weiss & Lunskey, 2011).

To improve program fidelity, attempts should be made to ensure service-users meet program criteria. There were 6 individuals identified whose referral forms did not indicate a diagnosis of ID in the results of Study 1, under Outputs. This could suggest that people were being served out of scope of the program or the individuals had a diagnosis of ID, however it was not indicated on the referral form. Although it would be impossible to determine which possibility is correct, this suggests improvements could be made to the program. Documentation should be thoroughly examined during the triage process, prior to acceptance into the program, to ensure all information on the referral forms are complete and correct. If an individual does not meet the program criteria but still receives services, the assessment report should outline why an exception was made for this individual or the program criteria should be expanded.

Attempts to follow the CSS manual should be made. Although CSS followed most of the activities involved in CSS, there was a lack of fidelity in the implementation of some of the services. CSS does not produce formal documentation outlining progress following distribution of the assessment report. The CSS manual outlined a written report is provided to the service-user's caregiver which included a reason for closure, summary of interventions, review of goals accomplished, outstanding goals not achieved and why, and requirements for continued stabilization. The CSS Coordinator indicated this document does not exist. This document would be essential in determining service-user outcomes and effectiveness of CSS for future evaluations. Standardized evaluations of service-users before and after utilizing CSS are also required to ensure clinical progress has been made.

CSS should also provide satisfaction surveys regularly to service-users and their caregivers to ensure their program is providing the best services possible. A follow-up survey is needed and should also be administered following discharge to determine if progress has

continued or if the service-user was reverting to previous challenging behaviours, at which point CSS could intervene. This information could improve the program, reduce rereferrals, and ensure the best possible care is being provided.

### ***Standardize and Improve Caregiver Recommendations***

Based on the results from the assessment reports, it is clear there are certain recommendations that are frequently repeated, despite each assessment report being individualized. Due to these similar and recurring recommendations, the development of a best practice manual for those caring for individuals with ID would be beneficial. CSS could provide organizations with a structured template with guidelines on how to best interact with clients and serve as a resource to help train new staff. This would be helpful for any organizations or caregivers that are waiting for services from CSS. The caregivers could try the suggestions prior to services. If they are unsuccessful, CSS would be able to provide further guidance. If the guidelines were successful, further CSS services may not be needed.

In addition, it would be beneficial to have a one-page summary of the recommendations provided, that a service-user caregiver could use daily. The assessment reports and recommendations CSS provides are lengthy, a staff member would likely not have time to review the assessment report or even the recommendation section on a regular basis, especially considering some of the recommendations may not apply to all caregiving staff. More detailed information might be required to explain each recommendation which would be found elsewhere, however the purpose of the one-page summary document would be to serve as a quick reminder or a checklist for staff to ensure all recommendations were followed daily.

### **Impact of COVID-19 Pandemic**

The COVID-19 pandemic impacted St. Amant's CSS in both positive and negative ways. Despite the challenges produced by the COVID-19 pandemic, St. Amant CSS showed resiliency by continuing to provide services during the pandemic. St. Amant's CSS adjusted to providing virtual services while also safely continuing with in-person services when necessary. Virtual services could be beneficial for some clients by increasing accessibility to CSS (e.g., people living in rural communities), or by making them feel more comfortable (e.g., a person experiencing social anxiety; Lunsky et al., 2021). Although St. Amant CSS staff were still able to provide services during the COVID-19 pandemic, it impacted their job satisfaction. Results from the CSS Staff Process Satisfaction Survey indicated CSS staff were concerned that communication between colleagues suffered as a result of the changes made due to COVID-19. Some CSS staff also indicated consultation became more difficult due to the lack of communication. One CSS staff even said their role on the CSS team changed due to COVID-19. As St. Amant's CSS navigates future services with the lasting impact of COVID-19, CSS staff recommended they continue to strive for better communication and methods of connecting as a team.

### **Contributions and Future Research**

This research supplements the existing literature by providing a systematic review of a crisis stabilization service using a logic model. By utilizing the standardized method of a logic model for program evaluation, the author was able to determine elements of the program that were successful and to identify areas for improvement. The author was also able to identify the types of data the organization should collect to better satisfy the outcome element of the logic

model. By fulfilling these recommendations, St.Amant will be able to conduct future evaluations to determine the effectiveness of their programs.

No other studies to the researcher's knowledge have applied a comprehensive social validity approach to evaluating behaviour stabilization programs from both the perspective of the staff and the individuals receiving care. As there were limited respondents in Study 2, future research should evaluate behaviour stabilization programs using this social validity approach with a larger sample size to determine the effectiveness of the program from the perspectives of all stakeholders.

Future studies should consider the use of a logic model to describe and evaluate their behaviour stabilization program. There are a limited number of systematic evaluations of crisis stabilization service models, and no standardized methods to evaluate behaviour stabilization programs (McCombe et al., 2022). Systematically evaluating and describing behaviour stabilization programs with a logic model would provide more structure to evaluations. It would also provide a framework for comparison between programs developed by different people/organizations.

Future research should examine the costs and benefits of a longer service period for CSS. The St.Amant CSS manual outlines that following the administration of the assessment report and recommendations, the service-user and caregivers have three to six months to implement CSS recommendations and receive feedback on their implementation of the recommendations. Results from both studies support a greater length of service. It was recommended in 29% of the assessment reports that monitoring by a professional for a longer period of time than CSS offered was needed. CSS staff also indicated a longer CSS program was necessary on the CSS Staff Process Satisfaction Survey. One question from the survey stated, "there was an adequate

amount of time training caregivers" which received an average score of 2.94 on the Likert scale, indicating not all staff were satisfied with the length of time provided to service-users. In addition, a CSS staff member commented on the survey that CSS could be improved by developing a follow-up service to prevent rereferrals due to a reoccurrence of challenging behaviour following discharge. These results indicate a longer CSS or follow-up service would be beneficial, however the cost and extended outcomes for those on the waitlist if service were extended would need to be evaluated as part of a cost benefit analysis before implementing a program change such as this.

Future research should also include more detailed follow-up data from a larger number of service-users to better satisfy the outcome component of the logic model. Administering questionnaires to stakeholders following the completion of CSS would provide the opportunity for CSS to collect long-term outcome data as well as information about service-users. This would provide useful information such as the number of service-users reverting to previous challenging behaviours, resulting in readmittance to the behaviour stabilization program or hospitalization. Standardized assessments should also be used to determine clear changes before and after the program. Assessments could include an evaluation of quality of life for both the service-user and their caregivers in addition to standardized tools such as the ones utilized by, for example, Hall, Parkes, Samuels, and Hassiotis (2006). It is important a standardized method of evaluation, including the tools utilized, be developed to assess, and compare behaviour stabilization services in a manner that would allow organizations to clearly determine the best practice for care.

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**Table 1*****Referral Information per Fiscal Year***

	2017-2018	2018-2019	2019-2020	2020-2021	Average
Total Referrals	10	15	23	28	19.00
Referrals on Waitlist	6	3	5	7	5.25
Referrals Active	3	4	6	4	4.25
Referrals Discharged	0	4	7	7	4.50
Referrals on Hold	0	0	0	3	0.75
Referrals Refused Service	1	2	5	7	3.75
Referrals Withdrawn	0	2	0	0	0.50

*Note.* Referral information based on results by the end of the fiscal year.

**Table 2*****Duration of Services in Days per Fiscal Year***

Fiscal Year	2017-2018	2018-2019	2019-2020	2020-2021
Latency to Service Onset				
Average	144.9	66	94.13	74.19
Min	8	13	6	0
Max	311	311	528	303
Median	144.50	29	52	44
Duration of Services				
Average	753.17	165.30	118.18	113.67
Min	98	47	41	30
Max	2882	267	174	211
Median	305.50	156.50	134	100

**Table 3*****Open Files Information of Client Data per Fiscal Year***

	2017-2018	2018-2019	2019-2020	2020-2021	Average
Total Open Files	24	25	34	39	30.50
Open Files on Waitlist	6	4	5	7	5.50
Open Files Active by End of Fiscal Year	4	3	6	4	4.25
Open Files Discharged by End of Fiscal Year	6	10	17	16	12.25
Open Files on Hold	0	1	0	3	1.00
Open Files Refused Service	1	3	6	9	4.75
Open Files Withdrawn	7	4	0	0	2.75
Total People Received Services (including active)	10	13	23	20	16.50

**Table 4*****Community Stabilization Service Resource Recommendations***

Recommendation	Number of Service-users	Percent of Service-users
Staff training on diagnosis	35	92%
Staff training on behaviour management	32	84%
Community involvement and making friends other than staff/ natural support network	19	50%
Increased staffing or staffing change	19	50%
Living arrangement change	12	32%
Develop plan to train new staff	11	29%
Monitoring by a professional for a longer period of time	11	29%
Systems meeting and regularly scheduled meetings	10	26%
Day program/ daytime supports	8	21%
Staffing roles better defined	8	21%

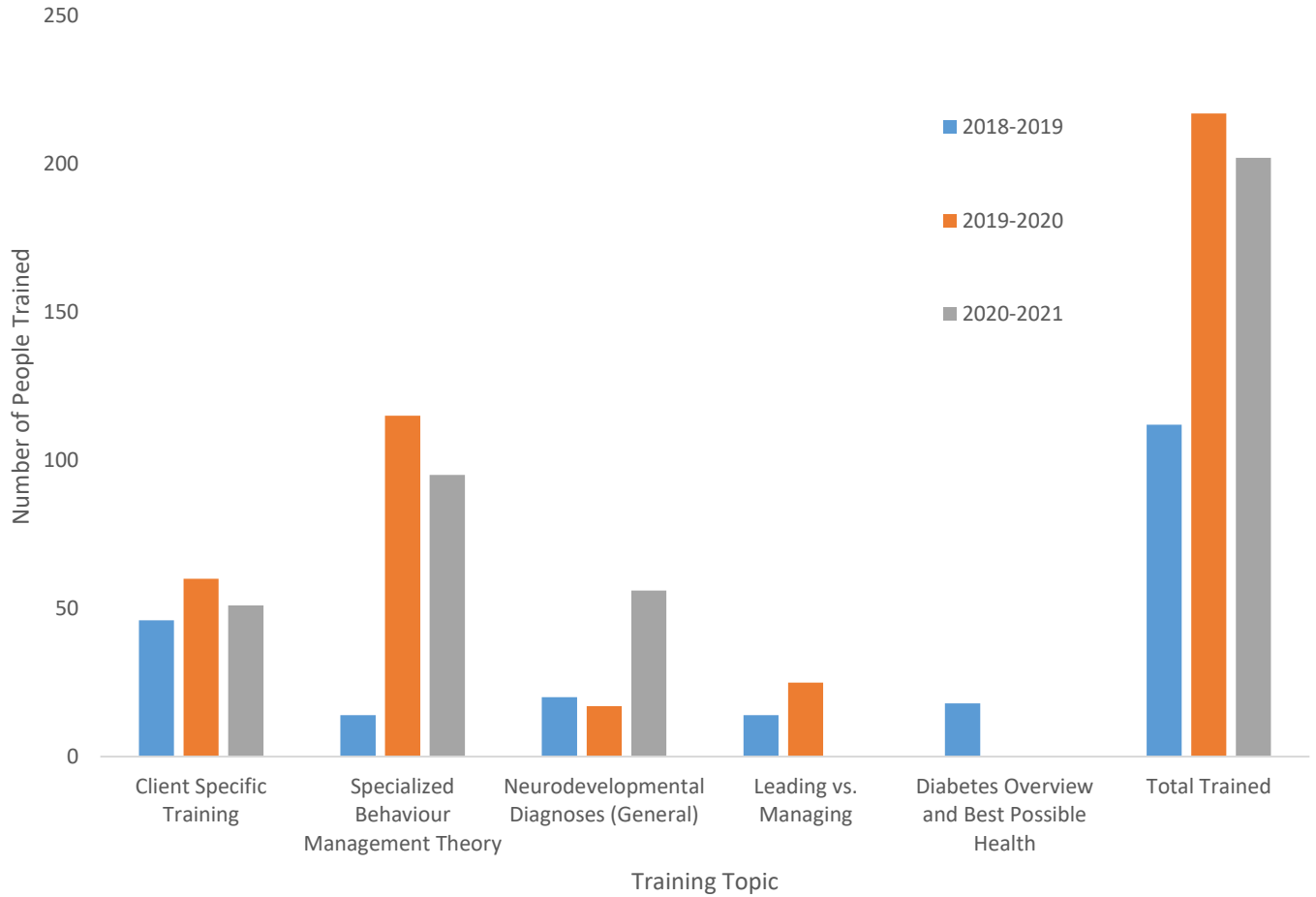
**Table 5*****Community Stabilization Service Referral Recommendations***

Recommendation	Number of Service-users	Percent of Service-users
Referral Recommended	34	89%
Occupational Therapist	21	55%
Dietician	16	42%
Other	13	34%
Audiologist	11	29%
Dentist	9	24%
Foot Care Nurse	9	24%
St.Amant's Feeding and Swallowing Nutrition Team	9	24%
Optometrist	8	21%
Speech and Language Pathologist	6	16%
Counsellor	5	13%
Electrocardiogram	5	13%
Psychiatrist	4	11%
Diagnostic Testing	4	11%
Behaviour Specialist	3	8%
Social work	3	8%
Physiotherapist	3	8%
Sleep apnea testing	3	8%
Nurse for service-user diagnosis or education	3	8%

**Table 6*****Community Stabilization Behavioural Recommendations***

Recommendation	Number of Service-users	Percent of Service-users
Daily schedule/routine	34	89%
Increase physical activity	24	63%
Clear expectations and boundaries	23	61%
Written support plan	22	58%
Sleep hygiene	17	45%
Include meaningful outings or activities in daily schedule	15	39%
Track behaviours of concern	15	39%
Calming/ coping strategies	15	39%
Use effective instructions and guidance	14	37%
Track common health issues	13	34%
Restrictive procedures documented in writing with a clear plan to reduce	12	32%
Teach daily living skills to service-user	10	26%
Service-user education on specific topic	9	24%
Improve service-user/staff communication	8	21%
Safety planning	7	18%
Follow through on instructions	6	16%
Environmental cues like visuals or timers	6	16%
Visuals to facilitate communication	5	13%
Providing Service-users with choices	3	8%
Self-care plan for staff	3	8%
Exposure treatment	3	8%
Track mental state	2	5%

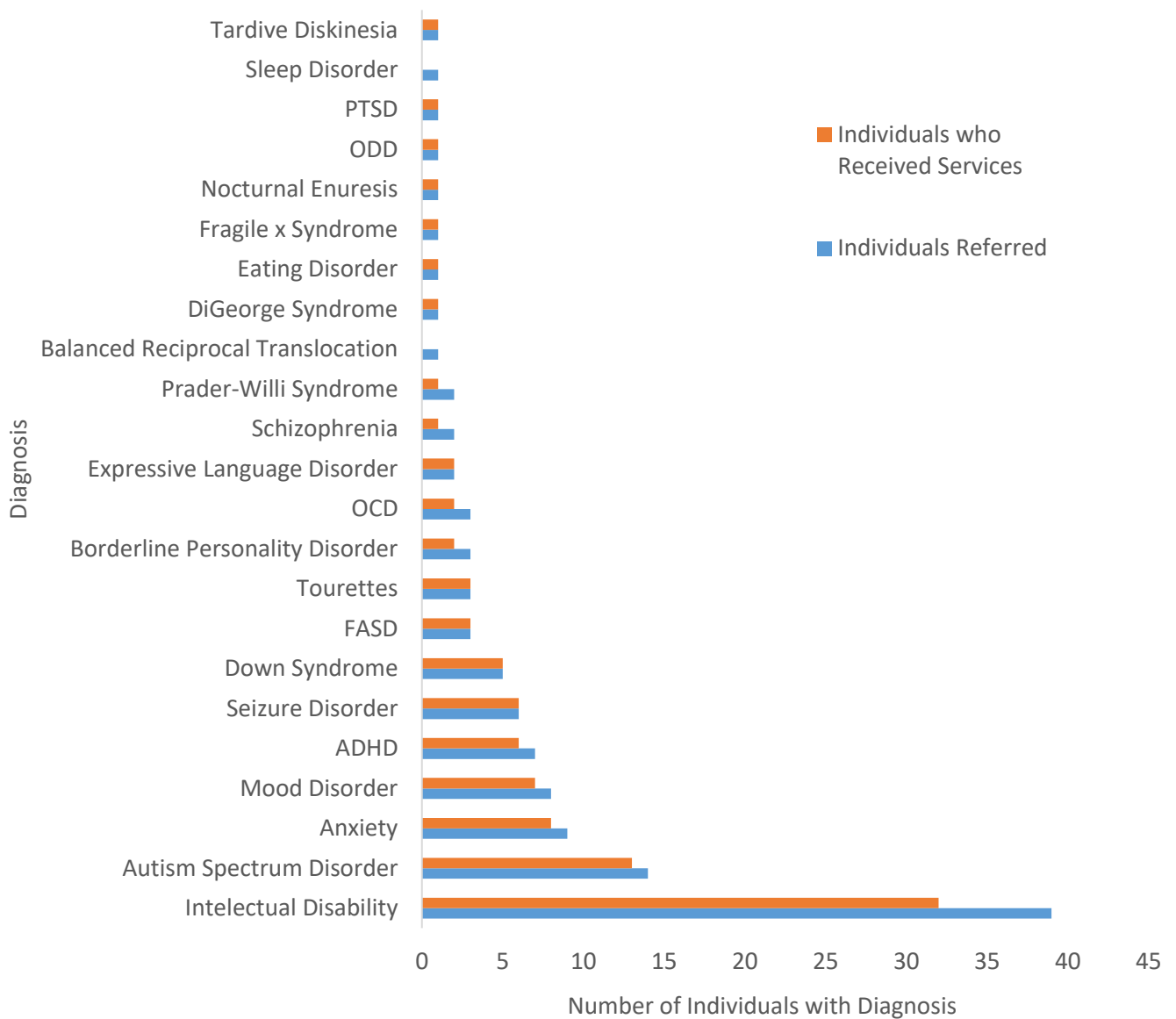
**Figure 1**  
*Caregiver Training*



*Note.* Number of external staff and service-user’s caregivers that were trained in relevant procedures to aid in the behaviour stabilization of the service-user receiving services from the Community Stabilization Service at St.Amant from 2018-2021. Data from 2017 was unavailable.

**Figure 2**

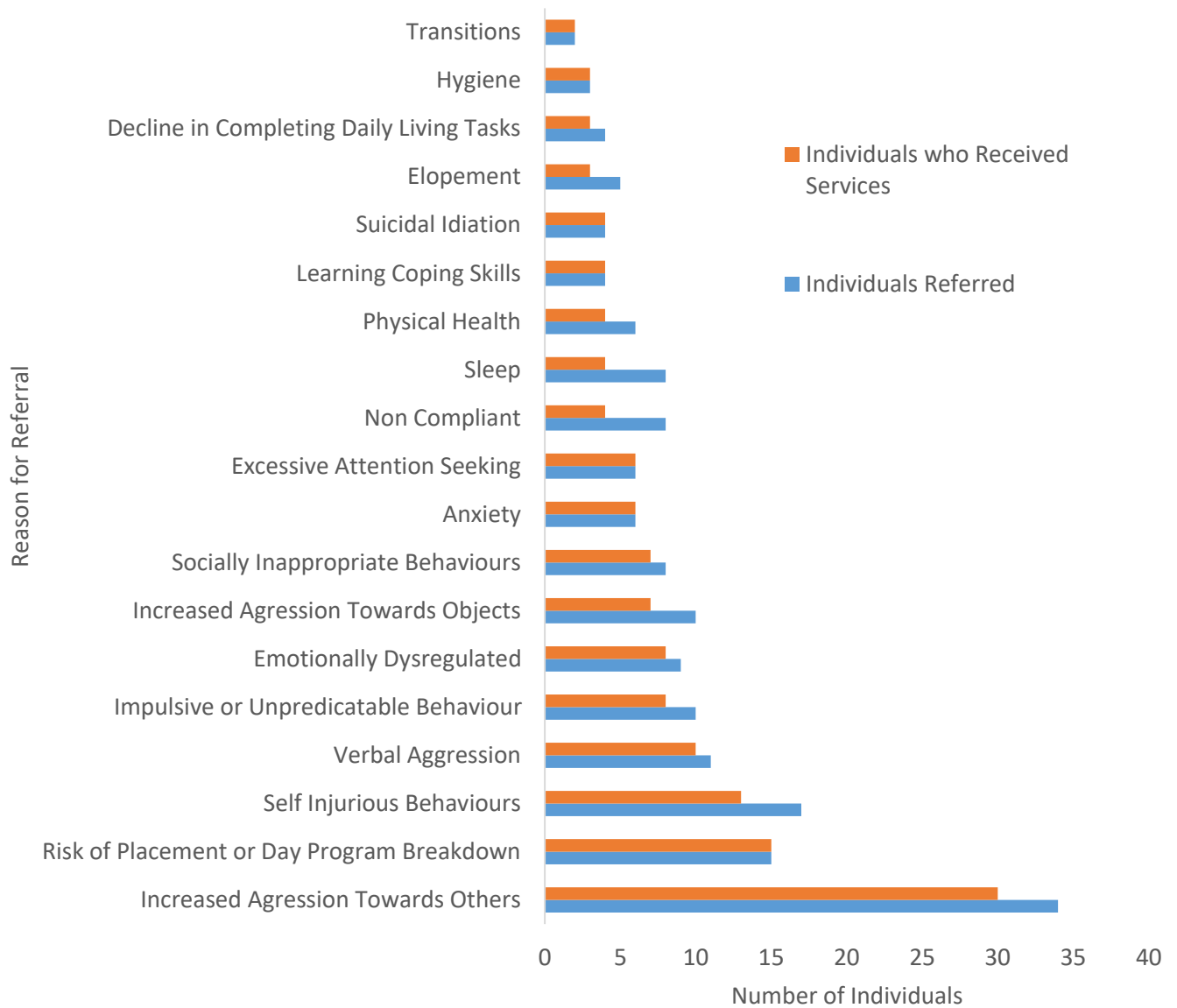
*Diagnoses of Individuals Referred and Discharged*



*Note:* Diagnosis of individuals referred to and discharged from the Community Stabilization Service at St.Amant from 2017-2021. The sum of individuals exceeds the number of persons served because most individuals had more than one diagnosis.

**Figure 3**

*Reason for Referral*



*Note:* Reason for referral for individuals referred to and discharged (individuals who received services) from the Community Stabilization Service at St. Amant from 2017-2021. Socially inappropriate behaviours include undressing in public, standing too close to others, and inappropriate sexual behaviour. The sum of individuals exceeds the number of persons served because most individuals had more than one reason for referral.

**Figure 4***Average CSS Staff Satisfaction Over Time*

*Note:* Average job satisfaction, ability to cope, and satisfaction of the CSS process for CSS staff over time. A 4-point Likert scale (“Strongly Agree”(4), “Agree”(3), “Disagree”(2), “Strongly Disagree” (1)) was used to determine satisfaction. There are five timepoints, Time 1 (March 2021), Time 2 (June 2021), Time 3 (December 2021), Time 4 (March 2022), and Time 5 (July 2022). A range of one to four CSS staff responding to the questionnaire at a given time, with a total of six different respondents.

**Appendix A**

**Logic Model**

Inputs		
<p>Personnel</p> <ul style="list-style-type: none"> <li>• 1 Psychologist (.6EFT)</li> <li>• 1 Psychology Technician (.7EFT)</li> <li>• 1 Nurse Consultant (Full Time)</li> <li>• 1 Social Worker (Full Time)</li> <li>• 1 Psychiatrist (Fee for service basis)</li> <li>• 1 Pharmacist (Fee for service basis)</li> <li>• 1 Administrative Assistant (Part time, sharing funding from other programs)</li> </ul>	<p>Equipment/physical space</p> <ul style="list-style-type: none"> <li>• Services provided at service-users’ homes</li> <li>• CSS staff used office space at the St.Amant facility to write reports</li> <li>• During COVID-19 pandemic, CSS staff worked from home when necessary</li> <li>• Individualized in-person training conducted at service-users’ homes</li> <li>• Group training conducted at St.Amant facility</li> <li>• During COVID-19 pandemic group training sessions conducted via video calls</li> </ul>	<p>Annual Budget</p> <ul style="list-style-type: none"> <li>• \$539,000 CAD each fiscal year</li> </ul>
Activities		
<p>Consultative model</p> <ol style="list-style-type: none"> <li>1. Receive referral</li> <li>2. Consent for program</li> <li>3. Triage meeting to determine if right for program, preliminary information, and priority on waitlist</li> <li>4. Prioritization determined with CSS coordinator and funding agency (Community Living Disability Services)</li> <li>5. Intake</li> <li>6. Separate assessments conducted by clinicians</li> <li>7. Assessment report developed</li> <li>8. Assessment report reviewed by all clinicians</li> <li>9. Assessment report sent to primary caregiver</li> </ol>		

<p>10. Assessment reviewed with primary caregiver and other relevant members of the service-users support network</p> <p>11. Implementation plan developed with support network</p> <p>12. Regular meetings to evaluate effectiveness and progress made by service-users and support network</p> <p>13. Discharge following completion of recommendations, demonstrated ability by the support network to implement recommendations without further assistance, withdrawal of consent, or service-user discharge from service</p> <p>14. Discharge meeting</p> <p>15. Closure report provides reason for closure, summary of interventions, goals that were accomplished, outstanding goals not accomplished, requirements for continued stabilization</p>		
<p>Outputs</p>		
<ul style="list-style-type: none"> <li>• Behaviour stabilization services provided to adults with ID for 3-6 months</li> <li>• Services provided by multidisciplinary team</li> <li>• Resource recommendations, pharmacological recommendations, behavioural recommendations</li> <li>• Services individualized based on services needed</li> <li>• Caregiver training provided when needed</li> <li>• Closure report (reason for closure, summary of interventions, goals that were accomplished, outstanding goals not accomplished, requirements for continued stabilization)</li> </ul>		
<p>Outcomes</p>		
Reduced serious incidents	Reduction in the reoccurrence of behavioural crisis	Reduced challenging behaviours
Service-User satisfaction with Program	Service-user Supports satisfaction with Program	Goals accomplished

## **Appendix B**

### **Process of Services**

#### **Referral**

1. Service-user's caregiver generates referral and sends to St. Amant Central Intake.
2. Central Intake sends referral to:
  - a. CSS Coordinator
  - b. CSS Administrative Assistant (AA)
  - c. Nursing Coordinator
  - d. Psychology CoordinatorAll parties add the referral to the respective waitlists.
3. CSS Facilitator reviews the referral for missing information within 48 business hours.
4. CSS Facilitator asks CSS AA to email service-user's caregiver to notify them referral is waitlisted, and CSS AA schedules a triage meeting.
5. CSS AA creates a service-user file which includes:
  - a. Completed referral form
  - b. Any additional information included with referral
  - c. Blank Clinical Services Files Notes page

#### **Consent**

1. CSS AA emails Service-user's caregiver the Consent to Exchange Information and Consent for Services forms prior to or at the intake meeting. Services are only provided when consent has been provided by the service-user or the substitute decision maker. Service-user's caregiver reviews forms with service-user and substitute decision maker.
2. If consent not received prior to intake meeting or consent is withdrawn, CSS Coordinator will contact the service-user's caregiver and inform them the file is closing. Coordinator will develop a discharge summary and will send a copy to the service-user's caregiver.

#### **Triage**

1. CSS AA schedules triage meeting with service-user representative (identified by service-user's caregiver), CSS Coordinator, and Nurse Consultant. Attendees include service-user's caregiver and may include service-user, family members, service-user's representatives from home, day program and/or place of employment. Service-user does not need to be in attendance.
2. If meeting occurs at a location other than a provincially licenced home, the CSS Coordinator completes a Manitoba Safety Assessment Form Tool, prior to the meeting.
3. CSS Nurse consultant sends letter to service-user's healthcare providers to notify them of referral.
4. CSS Coordinator and Nurse Consultant does brief assessment to determine the service-user's priority on the waitlist, readiness of service-user and their support network for services, and the amount of support the service-user requires. Clarification is also provided on support network roles.
5. CSS Nurse determines if there is a need for a medication review and informs the CSS psychiatrist. The CSS Psychiatrist reviews the information and either indicates a

medication review cannot be offered or provides the Nurse Consultant with recommendations.

6. Nurse Consultant provides written recommendations to the service-user's caregiver, the service-user's primary healthcare providers.
7. When necessary, resources are provided at the end of the meeting to the service-user representative to reduce urgency of referral.
8. Based on the Triage process, the service-user will either move forward with services or if they are determined to not be appropriate for the program, the CSS Coordinator withdraws the referral and informs the service-user's caregiver and CSS program funders.

### **Prioritization**

1. CSS Coordinator and a Manitoba Community Living Disability Services representative meet bi-monthly to review the priority of the referral based on information gathered during the triage assessment and the referral form. They utilize several prioritization criteria to aid them in their decision.
2. Prioritization Criteria:
  - Service-user at imminent risk of losing residential supports/home
  - Service-user at imminent risk of losing daytime supports
  - Service-user's behaviour is putting self or others at risk
  - Service-user's behaviour is placing dignity at risk
  - Supports are having difficulty keeping staff as a result of service-user's behaviour
  - Severe property damage is occurring
  - Service-user does not have access to Psychiatry
  - Service-user does not have access to Psychology/behaviour services
  - Service-user does not have a current Primary Healthcare provider

### **Intake**

1. CSS AA emails the service-user's caregiver to confirm services and to provide them with the appropriate forms.
2. The intake/admissions meeting is used to gain pertinent consent, review the CSS scope of services, gather information about the service-user's background and specific concerns, review expectations, determine the goals of service, and discuss the timeline. Attendees include service-user's caregiver and may include service-user, family members, service-user's representatives from home, day program and/or place of employment.
3. The CSS Coordinator will ensure relevant clinician assessments are scheduled.
4. After the intake meeting, the CSS Coordinator develops a written summary of the intake meeting to the CSS team and includes the referral form and all other relevant information.

### **Assessment**

1. The CSS Coordinator provides the interdisciplinary team with a four-week deadline to complete the relevant assessments and recommendations.
2. The overall assessment is comprised of information collected by each clinician in their respective areas, obtained from a variety of sources including collateral reports, interviews, and observations. All assessments review how the service-user's medication, mental health status, medical conditions, environmental factors, interpersonal events,

service-user skill set, and skill set of the support team impact the service-user's behaviour.

3. All the assessment findings and recommendations from each clinician are reported on a single document called the CSS Clinical Report.
  - All CSS Clinical Reports includes collateral reports, assessment findings, clinical impression, recommendations, and summary.
  - This report is distributed to the primary caregiver, psychiatrist, and service-user's caregiver who distributes it to pertinent members of the service-user's support network.
4. CSS Clinic Team meetings are held bi-weekly to share assessment findings, discuss recommendations, barriers or obstacles to assessment or interventions and any program or corporate updates.

### **Intervention**

1. The CSS Coordinator meets with the service-user's caregiver to review the CSS Clinical Report.
2. Recommendations are reviewed and an implementation plan is developed outlining support required from CSS. Each intervention is designed to meet specific service-user needs. Interventions employ a consultative approach to build capacity of caregivers and to help prevent the reoccurrence of behavioural crises.
3. Interventions may include;
  - a. Caregiver education and training
  - b. Creating pharmacological and health regimens
  - c. Developing a psychological behaviour support plan
  - d. Connecting with other professional services
  - e. Providing additional resources
4. CSS clinicians and the service-user's support team meet regularly to evaluate the effectiveness of the recommendations and the progress made by service-users and caregivers.

### **Discharge**

1. The CSS team will terminate intervention meetings and schedule a discharge meeting with the service-user and/or their support network; upon completion of recommendations, demonstrated ability by the support network to implement recommendations without further assistance, withdrawal of consent, or service-user discharge from service.
2. Upon determination of discharge, the CSS Coordinator schedules a discharge meeting. Attendees include the CSS Coordinator, service-user's caregiver and may include service-user, family members, service-user's representatives from home, day program and/or place of employment.
3. The discharge meeting reviews the following with the meeting attendees:
  - a. Review of goals set at admission and the degree to which they were met.
  - b. Description of recommendations implemented and outcomes.
  - c. Description of training delivered and an agency's plan to continue training without CSS involvement.
  - d. Any barriers encountered that may prevent supports from achieving recommendations.

- e. Acknowledgement of efforts and successes achieved by supports during the CSS' involvement.
4. Meeting minutes are provided to meeting attendees
5. A report is written and provided to the service-user's caregiver which includes:
  - a. Reason for closure
  - b. Summary of interventions
  - c. Review goals that were accomplished
  - d. Any outstanding goals not achieved and why
  - e. Requirements for continued stabilization

### **Service Timeline**

#### **Triage**

- The CSS AA schedules a triage meeting within 2 business days of receiving the referral.

#### **Intake**

- CSS AA schedules intake meeting within 2 business days of notification of service-user acceptance into CSS.

#### **Week 1**

- CSS team members contact the relevant individuals within 2 business days following receipt of referral information.

#### **Week 2 & 3**

- CSS team members conduct assessments.

#### **Week 4**

- CSS team members submit their respective assessments to the CSS Coordinator. The CSS Coordinator completes the CSS Clinical Report and it is discussed at the CSS Clinical Team Meeting.

#### **Week 5**

- CSS Team members edit their respective sections of the CSS Clinical Report within 2 business days of the CSS Clinical Team Meeting. The CSS Clinical Report is finalized and sent to the relevant individuals.

#### **Week 6-8**

- The CSS Coordinator schedules a meeting no later than 8 weeks following admission to discuss the assessments and recommendations with the service-user's support team.

#### **Intervention/Follow Up**

##### **3-6 months**

- The service-user's support team implements the recommendations. Regular meetings are scheduled with the service-user's support team and CSS team until discharge.

## Appendix C

### Service-User Satisfaction Interview

Participant's willingness to participate will be monitored at all times. Interviews will be terminated in the event a participant indicates they do not want to participate, that decision will be respected and the researcher will promptly leave. In the event of other signs of unrest, such as someone screaming, crying, or leaving the room, the interview will be terminated. Interviews will be conducted using a virtual platform to protect the safety of the participant. A hard copy of this questionnaire will be provided to a staff member serving the client to make it easier for the client to see the question and for the staff to better assist the client. This interview will not be recorded.

#### Step 1

Work with care providers to establish the method of communication used by service-user:

- Verbal
- Communication device
- Symbol cards
- Other: \_\_\_\_\_



#### Step 2

Establish assent by individual's preferred method of communication.

1. Hi <service-user name>, my name is <name of researcher>. Is it ok if I ask you some questions?
  - a. Service-user provides assent, praise and thank individual and proceed to Question 2
  - b. Service-user does not provide assent, ask: Is it ok if I come back later?
    - i. If yes, ask when
    - ii. If no, end interview by saying "Thank you, have a nice day" and leaving.

**Step 3**

Establish awareness of service.

2. Do you remember when <name of CSS staff> was here working with you and <name of care provider>?
  - a. If yes, proceed to Question 3
  - b. If no, try rewording question.
    - i. If yes, proceed to Question 3
    - ii. If no, end interview by saying “Thank you, have a nice day” and leave.
  
3. Do you know why <CSS staff member’s name> was here?
  - a. If yes, respond with praise and proceed to Question 4
  - b. If no, try rewording question.
    - i. If yes, proceed to Question 4
    - ii. If no, end interview by saying “Thank you, have a nice day” and leaving.

**Step 4**

Proceed with interview.

4. I want to ask you some questions about when <name of CSS staff> was here. Do you think he helped you?
  
5. Did you like working with him/her?
6. What did you like about working with him/her? (check all that apply)

Did they:

- use your name?
- listen to you?
- understand you?
- look at you when talking to you?

Were they:

- kind?
- friendly?
- fun?

7. Was there anything you did not like about working with him/her?
  
8. How are things different for you since <name of CSS staff> came and worked with you?
  
9. Has it changed how much you can do things you like doing?

- If yes, by how much?
  - More
  - Same
  - Less
- If no, move to question 10.

10. Would you like to work with <name of CSS staff> again?

11. Is there anything else you would like to share?

### **Step 5**

Thank participant for their answers. Wish them well (e.g., Have a nice day/weekend, etc.) and let them know you are leaving.

## Appendix D

### Family Consumer Satisfaction Survey

**Project Title:** A Prospective Evaluation of a Community-Based Behaviour Stabilization Service

**Research Team:**

Jessica Summers, PhD Candidate, University of Manitoba, Department of Psychology

Dr. Toby Martin, Assistant Professor, University of Manitoba, Department of Psychology; Director, St. Amant Research Centre

Lindsay McCombe, Project Coordinator, St. Amant Research Centre

We're conducting a research study to evaluate the behaviour stabilization services that St. Amant provides. Our goal is to increase knowledge about how best to provide this type of service. We invite you to complete this questionnaire to tell us how satisfied you are with the service's goals, methods, and outcomes.

You are receiving this request because your family member has used the services. It's been sent to you on our behalf by a St. Amant staff member who is not involved with this research project. We have not received any personal information about you.

If you participate, you'll answer questions about your experiences with these services. While answering, you may recall events that are upsetting or stressful. If you experience distress, please call the toll-free Klinik Crisis Line at 1-888-322-3019 which is available 24 hours a day. You should consider this risk in order to make an informed decision as to whether or not you would like to participate in this study.

Participation in this study is completely **voluntary**. Whether or not you complete the survey will in no way affect any services you or any service-users may be receiving now or in the future from St. Amant, the University of Manitoba, or any other organization. You are free to refrain from answering any questions you prefer to omit, without prejudice or consequence. All responses will be kept confidential and stored on a secure computer network at St. Amant Research Centre or in a locked office in the case of paper copies, only accessible by authorized research team members.

By completing and submitting this survey you indicate that you have understood to your satisfaction, this information about the research study, you have considered the potential risks, and you agree to participate. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities.

This research has been approved by the Research Ethics Board at the University of Manitoba, Fort Garry campus. If you have any concerns or complaints about this project, you may contact the Principal Investigator, Jessica Summers, or the Human Ethics Coordinator (HEC).

We estimate it will take approximately 10-15 minutes to complete this survey.

If you wish to be informed of the results of the study, please provide your contact information at

...

**Please do not provide any identifying information about yourself, family members, clients, or staff when answering the survey questions.**

## Background Information

Please note, if you have already completed background questions 1- 6 on a previous survey, you are not required to answer them again unless something has changed.

1. What is your relation to your loved one who will be getting services from St.Amant's Behaviour Stabilization Service?
  - Mother
  - Father
  - Grandparent
  - Step-parent
  - Sibling
  - Other. Please specify: \_\_\_\_\_
  
2. What is the highest degree or level of school you have completed?
  - Some high school, no diploma
  - High school graduate, diploma or the equivalent (e.g., GED)
  - Some college or university credit, no degree
  - University/College in progress
  - Trade/technical/vocational training
  - Bachelor's degree
  - Master's degree
  - Doctorate degree
  - Other. Please specify: \_\_\_\_\_
  
3. Which Behavioural Stabilization Service has your family member received (select all that apply):
  - Community Stabilization Services (CSS/CLSS)
  - Health and Transition Services (440 River Road)
  
4. When did your family member receive St.Amant's Behaviour Stabilization Services (approximate month(s) and year): \_\_\_\_\_

5. What were the circumstances that led up to seeking assistance/support from St.Amant’s Behaviour Stabilization Services?

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6. How many hospitalizations (e.g., admissions to CSU, psychiatric units, and visits to the ER) has your family member required over the last year due to challenging behaviours?

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**Satisfaction Ratings**

7. What are your most important goals that led to the referral? Check all that apply. If your goals are not represented by the following list, please write in your goals in the space provided.

- |   |   |
|---|---|
| <input type="checkbox"/> Reduce aggression                | <input type="checkbox"/> Improve personal hygiene     |
| <input type="checkbox"/> Reduce self-injurious behaviours | <input type="checkbox"/> Improve sleeping habits      |
| <input type="checkbox"/> Reduce suicidal ideation         | <input type="checkbox"/> Improve eating habits        |
| <input type="checkbox"/> Reduce anxiety                   | <input type="checkbox"/> Improve staff training       |
| <input type="checkbox"/> Development of coping skills     | <input type="checkbox"/> Increase activity engagement |
| <input type="checkbox"/> Development of a daily routine   | <input type="checkbox"/> Change medication            |
| <input type="checkbox"/> Improve and stabilize mood       | <input type="checkbox"/> _____                        |
| <input type="checkbox"/> Improve physical health          | <input type="checkbox"/> _____                        |

Please circle your answer.

- |  |     |    |                                 |
|--|-----|----|---------------------------------|
| 8. My goals for my family member were addressed.             | YES | NO | Other, please explain:<br>_____ |
| 9. I was consulted about the goals before the program began. | YES | NO | Other, please explain:<br>_____ |

10. These goals changed following intake.                      YES                      NO                      Other, please explain:  
 \_\_\_\_\_

Please rate your agreement with the following statements, on a scale from strongly disagree to strongly agree.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Not Applicable
11. The procedures used required an appropriate amount of time, effort, and/or discomfort.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I received adequate instruction to implement the behaviour management procedures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I am satisfied with the personnel who delivered the program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. The recommendations provided during the program are still helpful.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. What about the procedures did you find the most useful?

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16. What, if anything, about the procedures (or personnel) was least acceptable, or most challenging?

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Please rate your agreement with the following statements, on a scale from strongly disagree to strongly agree.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Not Applicable
<b>Results</b>					
17. I am satisfied with the program results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I am satisfied with the extent to which my most important program goals were achieved.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Were there any unplanned results?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Did the unplanned results improve your satisfaction with the program?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. The service made a meaningful difference to my family member's life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. I feel better prepared to support my family member because of the training provided by the behaviour stabilization team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Any other outcomes of the program were also acceptable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. I would recommend the services to other care providers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Are the recommendations from Behavioral Stabilization staff still being implemented? Please describe why or why not.

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26. Was the Behaviour Stabilization team willing to work with other professionals outside of St.Amant that serve your family member or client? If not, have they provided a satisfactory explanation?

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27. Please provide any suggestions you may have to improve the Behavioral Stabilization Services.

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**Please visit ... to provide your contact information if you wish to receive the results of the study.**

## Appendix E

### Service Agency Staff Consumer Satisfaction Survey

**Project Title:** A Prospective Evaluation of a Community-Based Behaviour Stabilization Service

**Research Team:**

Jessica Summers, PhD Candidate, University of Manitoba, Department of Psychology

Dr. Toby Martin, Assistant Professor, University of Manitoba, Department of Psychology; Director, St. Amant Research Centre

Lindsay McCombe, Project Coordinator, St. Amant Research Centre

We're conducting a research study to evaluate the behaviour stabilization services that St. Amant provides. Our goal is to increase knowledge about how best to provide this type of service. We invite you to complete this questionnaire to tell us how satisfied you are with the service's goals, methods, and outcomes.

You are receiving this request because your client has used the services. It's been sent to you on our behalf by a St. Amant staff member who is not involved with this research project. We have not received any personal information about you.

If you participate, you'll answer questions about your experiences with these services. While answering, you may recall events that are upsetting or stressful. If you experience distress, please call the toll-free Klinik Crisis Line at 1-888-322-3019 which is available 24 hours a day. You should consider this risk in order to make an informed decision as to whether or not you would like to participate in this study.

Participation in this study is completely **voluntary**. Whether or not you complete the survey will in no way affect any services you or any service-users may be receiving now or in the future from St. Amant, the University of Manitoba, or any other organization. You are free to refrain from answering any questions you prefer to omit, without prejudice or consequence. All responses will be kept confidential and stored on a secure computer network at St. Amant Research Centre or in a locked office in the case of paper copies, only accessible by authorized research team members.

By completing and submitting this survey you indicate that you have understood to your satisfaction, this information about the research study, you have considered the potential risks, and you agree to participate. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities.

This research has been approved by the Research Ethics Board at the University of Manitoba, Fort Garry campus. If you have any concerns or complaints about this project, you may contact the Principal Investigator, Jessica Summers, or the Human Ethics Coordinator (HEC).

We estimate it will take approximately 10-15 minutes to complete this survey.

If you wish to be informed of the results of the study, please provide your contact information at

...

**Please do not provide any identifying information about yourself, family members, clients, or staff when answering the survey questions.**

**Background Information**

1. How are you connected to St.Amant's Behaviour Stabilization Services?
  - An individual I support accessed the services
  - I am the case manager of someone who accessed the services
  - Other. Please specify: \_\_\_\_\_
  
2. Which organization are you employed with?
  - St.Amant Community Residential Program
  - New Directions
  - DASCH
  - Winnserv
  - Other. Please specify: \_\_\_\_\_
  
3. What is the highest degree or level of school you have completed?
  - Some high school, no diploma
  - High school graduate, diploma or the equivalent (e.g., GED)
  - Some college or university credit, no degree
  - University/College in progress
  - Trade/technical/vocational training
  - Bachelor's degree
  - Master's degree
  - Doctorate degree
  - Other. Please specify: \_\_\_\_\_
  
4. How long have you been supporting the individual that accessed St.Amant's Behavioural Stabilization Services? \_\_\_\_\_
  
5. Which Behavioural Stabilization Service has your client received (select all that apply):
  - Community Stabilization Services (CSS/CLSS)
  - Health and Transition Services (440 River Road)

6. When did your client receive St.Amant's Behaviour Stabilization Services (approximate month(s) and year): \_\_\_\_\_
7. What were the circumstances that led up to seeking assistance/support from St.Amant's Behaviour Stabilization Services?  
\_\_\_\_\_  
\_\_\_\_\_
8. How many hospitalizations (e.g., admissions to CSU, psychiatric units, and visits to the ER) has your client required over the last year due to challenging behaviours?  
\_\_\_\_\_  
\_\_\_\_\_

### Satisfaction Ratings

9. What are your most important goals that led to the referral? Check all that apply. If your goals are not represented by the following list, please write in your goals in the space provided.

- |   |   |
|---|---|
| <input type="checkbox"/> Reduce aggression                | <input type="checkbox"/> Improve personal hygiene     |
| <input type="checkbox"/> Reduce self-injurious behaviours | <input type="checkbox"/> Improve sleeping habits      |
| <input type="checkbox"/> Reduce suicidal ideation         | <input type="checkbox"/> Improve eating habits        |
| <input type="checkbox"/> Reduce anxiety                   | <input type="checkbox"/> Improve staff training       |
| <input type="checkbox"/> Development of coping skills     | <input type="checkbox"/> Increase activity engagement |
| <input type="checkbox"/> Development of a daily routine   | <input type="checkbox"/> Change medication            |
| <input type="checkbox"/> Improve and stabilize mood       | <input type="checkbox"/> _____                        |
| <input type="checkbox"/> Improve physical health          | <input type="checkbox"/> _____                        |

Please circle your answer.

10. My goals for my client were addressed.                      YES                      NO                      Other, please explain:  
\_\_\_\_\_

- |   |     |    |                                 |
|---|-----|----|---------------------------------|
| 11. I was consulted about the goals before the program began. | YES | NO | Other, please explain:<br>_____ |
| 12. These goals changed following intake.                     | YES | NO | Other, please explain:<br>_____ |

Please rate your agreement with the following statements, on a scale from strongly disagree to strongly agree.

- |  | Strongly Disagree     | Disagree              | Agree                 | Strongly Agree        | Not Applicable        |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 13. The procedures used required an appropriate amount of time, effort, and/or discomfort. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 14. I received adequate instruction to implement the behaviour management procedures.      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 15. I am satisfied with the personnel who delivered the program.                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 16. The recommendations provided during the program are still helpful.                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

17. What about the procedures did you find the most useful?

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18. What, if anything, about the procedures (or personnel) was least acceptable, or most challenging?

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Please rate your agreement with the following statements, on a scale from strongly disagree to strongly agree.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Not Applicable
<b>Results</b>					
19. I am satisfied with the program results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I am satisfied with the extent to which my most important program goals were achieved.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Were there any unplanned results?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Did the unplanned results improve your satisfaction with the program?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. The service made a meaningful difference to my client's life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. I feel better prepared to support my client because of the training provided by the behaviour stabilization team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Any other outcomes of the program were also acceptable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. I would recommend the services to other care providers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. Are the recommendations from Behavioral Stabilization staff still being implemented? Please describe why or why not.

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28. Was the Behaviour Stabilization team willing to work with other professionals outside of St.Amant that serve your client? If not, have they provided a satisfactory explanation?

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29. Please provide any suggestions you may have to improve the Behavioral Stabilization Services.

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**Please visit ... to provide your contact information if you wish to receive the results of the study.**

## Appendix F

### Process Satisfaction Survey

**Project Title:** A Prospective Evaluation of a Community-Based Behaviour Stabilization Service

**Research Team:**

Jessica Summers, PhD Candidate, University of Manitoba, Department of Psychology

Dr. Toby Martin, Assistant Professor, University of Manitoba, Department of Psychology; Director, St. Amant Research Centre

Lindsay McCombe, Project Coordinator, St. Amant Research Centre

We're conducting a research study to evaluate the behaviour stabilization services that St. Amant provides. Our goal is to increase knowledge about how best to provide this type of service. We invite you to complete this questionnaire to tell us how satisfied you are with the service's goals, methods, and outcomes.

You are receiving this request because you help provide behaviour stabilization services offered by St. Amant. A St. Amant staff member that is not involved with this research project has sent you this survey on our behalf and we have not received any personal information about you.

If you participate, you'll answer questions about your role, experiences, and satisfaction with St. Amant's behaviour stabilization services. While answering, you may recall events that are upsetting or stressful. If you experience distress, please call the toll-free Klinik Crisis Line at 1-888-322-3019 which is available 24 hours a day. You should consider this risk in order to make an informed decision as to whether or not you would like to participate in this study.

Participation in this study is completely voluntary. Whether or not you complete the survey will in no way affect your employment or any services you or any service-users may be receiving now or in the future from St. Amant, the University of Manitoba, or any other organization. You are free to refrain from answering any questions you prefer to omit, without prejudice or consequence. All responses will be kept confidential and stored on a secure computer network at St. Amant Research Centre or in a locked office in the case of paper copies, only accessible by authorized research team members.

By completing and submitting this survey you indicate that you have understood to your satisfaction, this information about the research study, you have considered the potential risks, and you agree to participate. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities.

This research has been approved by the Research Ethics Board at the University of Manitoba, Fort Garry campus. If you have any concerns or complaints about this project, you may contact the Principal Investigator, Jessica Summers, or the Human Ethics Coordinator (HEC)

We estimate it will take approximately 10-15 minutes to complete this survey.

If you wish to be informed of the results of the study, please provide your contact information at

...

**Please do not provide any identifying information about yourself, family members, clients, or staff when answering the survey questions.**

**Self-Generated Participant Code:**

We don't want you to identify yourself, but you may receive other questionnaires from this project in the future, and we'd like to be able to compare your responses over time. Please answer the following four questions to produce a unique participant code that doesn't identify you.

- i. What's the first letter of your mother's first name (e.g., "M" if your mother's name is Mary Smith)? \_
- ii. How many older brothers do you have (living and deceased) (e.g., "2" if you have two older brothers)? \_
- iii. Number representing the month you were born (e.g., "07" if your birthday is in July; "10" if your birthday is in October): \_\_
- iv. What's the first letter of your middle name (if none, use "X") (e.g., "R" if your name is Lisa Ruby Smith)? \_

**Background Information**

**A reminder that you are free to refrain from any question that you prefer to omit without consequence. If you are concerned your answers may compromise your anonymity please leave the question(s) blank.**

1. What is your role and briefly describe your duties? \_\_\_\_\_
2. How long have you supported persons receiving Behaviour Stabilization Services provided by St.Amant?
  - 0-6 months
  - more than 6 months and less than 1 year
  - more than 1 year and less than 2 years
  - more than 2 years and less than 3 years
  - more than 3 years and less than 4 years
  - more than 4 years and less than 5 years
  - more than 5 years
3. How long have you been providing services to individuals with developmental disabilities?
  - 0-6 months

- more than 6 months and less than 1 year
- more than 1 year and less than 2 years
- more than 2 years and less than 3 years
- more than 3 years and less than 4 years
- more than 4 years and less than 5 years
- more than 5 years

**Satisfaction Ratings**

To answer the following questions, think of your employment as part of St.Amant’s Behaviour Stabilization Service delivery over the last 3 months. Please rate your agreement with the following statements, on a scale from 1 (strongly disagree) to 4 (strongly agree).

<b>Over the last 3 months</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Not Applicable</b>
4. I was satisfied with the onboarding and orientation process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I was satisfied with the compensation I received.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I was satisfied with the employee benefits I received.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I was satisfied with the opportunity for advancement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I was satisfied with the recognition I received for my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I felt a sense of pride in my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I maintained a healthy balance between work, family, and relationships.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. The stress I experienced related to my job was manageable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- |  |                       |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 12. I have received useful training to help cope with job stressors.                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 13. The behaviour stabilization service team had adequate material resources.                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 14. The behaviour stabilization service team had adequate knowledge/skills.                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 15. The distribution of work was fair.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 16. Overall, I was satisfied with how the behaviour stabilization services were delivered.       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 17. I am satisfied with communication among the behaviour stabilization service team.            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 18. I was satisfied with the job performance feedback I received.                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 19. I was satisfied with the support I received from my supervisor.                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 20. The services we provided made meaningful differences in the lives of the clients we support. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 21. In general, there was an adequate amount of time training caregivers.                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 22. I felt the caregivers of the client were competent and                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

confident in their abilities,  
 following the training  
 provided by the behaviour  
 stabilization team.

23. The services adequately filled a gap in the health system.                      ○                      ○                      ○                      ○                      ○

24. My satisfaction with my employment as part of the stabilization service has been impacted by the COVID-19 pandemic.                      ○                      ○                      ○                      ○                      ○

25. If you indicated that your overall satisfaction has been impacted by COVID-19, please use this space to comment on that impact.

26. Please use this space to comment on any of your ratings above.

27. How could the Stabilization Services be improved?

**Please visit ... to provide your contact information if you wish to receive the results of the study.**

### Appendix G

#### Raw Data Family Consumer Satisfaction Survey

*Note.* All participant answers are verbatim.

Question Number	Questions	Participant Answers	Participant Answers
1	What is your relation to your loved one who will be getting services from St.Amant's Behaviour Stabilization Service?	Other: myself	Mother
2	What is the highest degree or level of school you have completed?	Other: some special Classes	Bachelor's Degree
3	Which Behavioural Stabilization Service has your family member received (select all that apply): Community Stabilization Services (CSS/CLSS) Health and Transition Services (440 River Road)		Community Stabilization Services (CSS/CLSS)
4	When did your family member receive St.Amant's Behaviour Stabilization Services (approximate month(s) and year):		Fall 2020 to present (August 2022)
5	What were the circumstances that led up to seeking assistance/support from St.Amant's Behaviour Stabilization Services?	Anxiety	Medical issues were not being diagnosed by GP, Psychiatry, HSC and emergency personnel. Extreme behavioural aggression etc as a result.
6	How many hospitalizations (e.g., admissions to CSU, psychiatric units, and visits to the ER) has your family member required over the last year due to challenging behaviours?	Never	This has been an issue for 4 years so in past year no admissions as they do not lead to any good results. We depend on a new GP now who is able to diagnose and treat and work with any specialists. From 4 years ago probably 4 emergency visits and one 5 week admission at HSC Psych. They wanted to place him in Selkirk but

			we placed him in a group home as we would not place him in an institution.
7	What are your most important goals that led to the referral? Check all that apply. If your goals are not represented by the following list, please write in your goals in the space provided.	Reduce anxiety, Improve and stabilize mood, improve physical health, improve personal hygiene, improve sleeping habits, improve eating habits. Improve staff training, increase activity engagement	Reduce aggression, Reduce suicidal ideation, Reduced anxiety, Improve and stabilize mood, improve physical health, improve personal hygiene, improve sleeping habits, improve eating habits, increase activity engagement, change medication, Receive appropriate diagnosis for medical conditions instead of psychiatric drugging. Advocacy for better medical treatment.
8	My goals for my family member were addressed	No	Other: CSS assisted us in getting an appropriate GP who was able to start changes and diagnose. They then assisted to treat the sideeffects of the drugs that he was placed on with misdiagnosis that created horrific side effects and neurological issues.
9	I was consulted about the goals before the program began.	Yes	Yes
10	These goals changed following intake.	No	Yes
11	The procedures used required an appropriate amount of time, effort, and/or discomfort.	Not Applicable	Agree
12	I received adequate instruction to implement the behaviour management procedures.	Not Applicable	Agree
13	I am satisfied with the personnel who delivered the program.	Not Applicable	Strongly Agree
14	The recommendations provided during the program are still helpful.	Not Applicable	Strongly Agree
15	What about the procedures did you find the most useful?		The acknowledgement that our son needed a better

			<p>system for medical care and assisted and advocated for a more appropriate GP to look at all medical aspects and work with and make decisions from other specialists. A feeding team that came in to help implement strategies to assist in a feeding and weight increase program as he developed Parkinsonism from misdiagnosis and medications that harmed him, We know have SLP to teach him to verbalize discomfort etc to help in diagnosis and treatment.</p>
16	<p>What, if anything, about the procedures (or personnel) was least acceptable, or most challenging?</p>		<p>I do think persons with communication and developmental issues need access to Medical Doctors that can treat them. That understand that they are more likely to have certain medical issues and check for these issues instead of using psychiatric meds just drug them, institutionalize them and quiet them down. The CSS Nurse was able to find us a proper GP and support that changed things dramatically.</p>
17	<p>I am satisfied with the program results.</p>	Not Applicable	Agree
18	<p>I am satisfied with the extent to which my most important program goals were achieved.</p>	Not Applicable	Agree
19	<p>Were there any unplanned results?</p>	Not Applicable	Not Applicable
20	<p>Did the unplanned results improve your satisfaction with the program?</p>	Not Applicable	Not Applicable

21	The service made a meaningful difference to my family member's life.	Not Applicable	Strongly Agree
22	I feel better prepared to support my family member because of the training provided by the behaviour stabilization team.	Not Applicable	Agree
23	Any other outcomes of the program were also acceptable.	Not Applicable	Strongly Agree
24	I would recommend the services to other care providers.	Not Applicable	Strongly Agree
25	Are the recommendations from Behavioral Stabilization staff still being implemented? Please describe why or why not.	i never attended any program yet	Yes we are still working with CSS. We are still using the recommendations as they are effective.
26	Was the Behaviour Stabilization team willing to work with other professionals outside of St.Amant that serve your family member or client? If not, have they provided a satisfactory explanation?		Yes they have worked with others and has been a great team. Lots of training and input to other staff and very accepting of knowledge from others to provide the best care.
27	Please provide any suggestions you may have to improve the Behavioral Stabilization Services.		The clients need access to an appropriate Medical doctor who can diagnose if the behaviours are caused by physical medical issues such as infections, GI concerns, seizures etc...

### Appendix H

#### Raw Data Service Agency Staff Consumer Satisfaction Survey

*Note.* All participant answers are verbatim.

Question Number	Questions	Participant Answers
1	How are you connected to St.Amant's Behaviour Stabilization Services?	I am the case manager of someone who accessed the services
2	Which organization are you employed with?	Other: ACL Beausejour Branch
3	What is the highest degree or level of school you have completed?	Bachelor's degree
4	How long have you been supporting the individual that accessed St.Amant's Behavioural Stabilization Services?	1 year- have moved into new position and no longer directly supporting participant
5	Which Behavioural Stabilization Service has your client received (select all that apply): Community Stabilization Services (CSS/CLSS) Health and Transition Services (440 River Road)	Community Stabilization Services (CSS/CLSS)
6	When did your client receive St.Amant's Behaviour Stabilization Services (approximate month(s) and year):	June -December 2020
7	What were the circumstances that led up to seeking assistance/support from St.Amant's Behaviour Stabilization Services?	- increase in behavioral challenges coupled with complex medical needs and hospital stays, resulting in family fatigue, breakdown and ultimately leading into crisis placement with agency
8	How many hospitalizations (e.g., admissions to CSU, psychiatric units, and visits to the ER) has your client required over the last year due to challenging behaviours?	Unknown
9	What are your most important goals that led to the referral? Check all that apply. If your goals are not represented by the	Reduce aggression, Reduce self-injurious behaviours, Reduce anxiety, Development of coping skills, Development of a daily

	following list, please write in your goals in the space provided.	routine, Improve and stabilize mood, Improve physical health, Improve sleeping habits, Change medication,
10	My goals for my client were addressed.	Yes
11	I was consulted about the goals before the program began.	Yes
12	These goals changed following intake.	No
13	The procedures used required an appropriate amount of time, effort, and/or discomfort.	Agree
14	I received adequate instruction to implement the behaviour management procedures.	Strongly Agree
15	I am satisfied with the personnel who delivered the program.	Strongly Agree
16	The recommendations provided during the program are still helpful.	Strongly Agree
17	What about the procedures did you find the most useful?	the clinicians provided instructions that were clear and easily to follow for staff. As this participant was new to the agency and moved in at a time of active crisis, it was important that the information and instructions/procedures were clear and easy to follow. The CSS team was invaluable in terms of providing specific training and directions.
18	What, if anything, about the procedures (or personnel) was least acceptable, or most challenging?	
19	I am satisfied with the program results.	Strongly Agree
20	I am satisfied with the extent to which my most important program goals were achieved.	Strongly Agree
21	Were there any unplanned results?	Disagree
22	Did the unplanned results improve your satisfaction with the program?	Not Applicable
23	The service made a meaningful difference to my client's life.	Strongly Agree
24	I feel better prepared to support my client because of the training provided by the behaviour stabilization team.	Agree
25	Any other outcomes of the program were also acceptable.	Agree

26	I would recommend the services to other care providers.	Strongly Agree
27	Are the recommendations from Behavioral Stabilization staff still being implemented? Please describe why or why not.	to my knowledge yes as support staff are required to follow protocols in place and many of the protocols were developed with the CSS team as the participant was transitioning into residential care.
28	Was the Behaviour Stabilization team willing to work with other professionals outside of St.Amant that serve your client? If not, have they provided a satisfactory explanation?	yes, they were able to connect the participant with a new doctor and medical team that continues to follow the participant today. They were also able to connect the family with others support groups if the wanted.
29	Please provide any suggestions you may have to improve the Behavioral Stabilization Services.	

## Appendix I

### Recommendations for CSS Improvement

Address Staff Turnover and Burnout	<ul style="list-style-type: none"> <li>• Increase type and number of CSS staff</li> <li>• Increase training for CSS staff for coping with work stressors</li> <li>• Additional time off for CSS staff</li> <li>• Development of a train-the-trainer program</li> </ul>
Increased Capacity Building in the Community	<ul style="list-style-type: none"> <li>• Increase and expand CSS training for professionals who may encounter individuals with ID with challenging behaviour (e.g. health care professionals and RCMP)</li> <li>• Increase time for implementation of CSS recommendations and follow-up</li> </ul>
Improve CSS Fidelity and Data Collection	<ul style="list-style-type: none"> <li>• Standardize and streamline operational components of the program (i.e. standardized referral form, use standardized tools for triage decisions)</li> <li>• Improve program fidelity             <ul style="list-style-type: none"> <li>• Ensure service-users meet program criteria</li> <li>• Follow CSS manual (CSS should produce formal documentation outlining: reason for closure, summary of interventions, review of goals accomplished, outstanding goals not achieved and why, and requirements for continued stabilization)</li> </ul> </li> <li>• Use standardized evaluations of service-users before and after using CSS</li> <li>• Administer satisfaction surveys to service-users and their caregivers</li> <li>• Administer follow-up surveys following discharge (to determine if progress has continued or if the service-user was reverting to previous challenging behaviours)</li> </ul>
Standardize and Improve Caregiver Recommendations	<ul style="list-style-type: none"> <li>• Investigate the development of a best practice manual</li> <li>• Develop a one-page summary of recommendations for daily use</li> </ul>