Preliminary Evaluation of a Flexible Length of Stay Policy at a Residential Substance Abuse Treatment Facility for Youth

by

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Abstract

Substance abuse affects a significant number of people in today’s society, affecting nearly 6 million Canadians in the year 2013 (Pearson, Janz, & Ali, 2013). Substance abuse is associated with various negative outcomes and can have a substantial impact on an individual’s physical and mental health; therefore, the need to address such issues as early as possible is critical. There are various approaches commonly used to treat substance use disorders including, but not limited to: outpatient, community-based, computer-assisted therapy, self-help groups, medications, 12-step programs, as well as short- and long-term residential treatment. The current study gathered archival data from a residential treatment facility for youth in order to determine the effects of a flexible length of stay policy. This policy was implemented 8 months prior to the current study, as a means to provide the clients of the agency with the opportunity to complete less than the full 90 days of treatment with a sense of accomplishment. More specifically, clients with severe mental health concerns were provided the opportunity to complete a shorter length of stay in treatment, as in some cases, it may not have been possible to complete the full 90 days due to growing concern for their wellbeing. The current study examined the data from the three years prior to the flexible length of stay policy and compared that data to the 8 months preceding the implementation of the policy. The results of the current study determined that the average length of stay decreased after the flexible length of stay policy was implemented. Additionally, no statistically significant result was found when gender was compared for type of discharge. In the future, it would be beneficial to conduct further research to determine treatment outcomes upon implementing the flexible length of stay policy. The results of the staff survey suggested that the majority of respondent agreed that client motivation was increased and administrative discharges and aggression had decreased.
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Chapter I: Introduction

Substance abuse during adolescence can have a significant effect on the individual’s healthy development and may pose an immediate risk to their wellbeing. For this reason, treatment for youth substance abuse has been studied repeatedly. Results from various studies suggest that treatment is usually successful in reducing substance use. There are various approaches to treating youth substance abuse, such as outpatient treatment, group and individual counselling, abstinence-based treatment, and residential treatment. Many of these treatment approaches include the use of cognitive behaviour therapy, applied behaviour analysis, and motivational interviewing. However, research suggests that other factors affect treatment outcomes. In an evaluation of group-based substance abuse treatment for youth, Battjes, Gordon, O’Grady, and Kinlock (2004) determined that there are several factors that influence treatment response. The factors they identified were emotional abuse history, family satisfaction, school adjustment, and frequency of substance use prior to entering treatment. This finding by Battjes et al. indicates a need to address these concerns throughout treatment in order to increase positive treatment outcomes.

It is critical to address substance abuse concerns as early as possible with the youth population because of the negative effect it may have on their healthy development. During residential treatment, the youth are taught healthy ways of coping with life’s stressors. Residential treatment also addresses various life areas, such as self-care, communication skills, problem solving, and anger management. The overall goal is to teach youth that a non-using lifestyle is more rewarding than a using lifestyle. Mills, Pepler, and Cribbie (2013) evaluated a residential treatment program to determine if it was effective in reducing substance abuse in an adolescent population. They found that residential treatment allows the youth to take time in adjusting to treatment. Once the youth have become accustomed to the daily routine they are then able to begin addressing the underlying concerns. Eventually, the youth can begin to build acceptance and coping skills to navigate daily life, which later transfers to their regular life outside of treatment. Mills et al. followed youth who attended individual, group, and family therapy in a highly structured residential treatment facility. The results of that study indicated that youths’ substance abuse had decreased at a 3 to 6 month follow up. The study showed a large effect and a reduction in substance abuse of more than four standard deviations (Mills et al., 2013). Thus, this study demonstrated that residential treatment was effective in decreasing substance abuse in a youth population.

Traditional treatment programs for substance abuse are typically 90 days and if a client makes the voluntary choice to leave treatment, the treatment would be considered incomplete. For some clients, it is possible that 90 days in treatment is simply too long due to their mental health concerns, as they were not addressed directly during treatment. Therefore, the youth may find that residential substance abuse treatment is unsuitable for them. In contrast, some youth may find that 90 days is not long enough and they would like to continue working on their recovery in a residential setting. Thus, implementing a flexible length of stay policy allows those who cannot attend a full 90-day program to complete 30 days of treatment with a sense of accomplishment. Furthermore, it provides those who have the desire to continue working on their recovery to remain in residential treatment.

Beginning in February 2015, the placement agency made the decision to implement a flexible length of stay policy within the residential facilities with various goals in mind. In the opinion of the agency, this policy would allow for an individually tailored length of stay, clients
could complete less than 90 days with a sense of accomplishment, and it would allow for increased client ownership of the treatment experience. The agency also believed that in some cases, a 90-day residential program would not be feasible due to health concerns or other reasons. Therefore, the agency provided the opportunity for clients to complete less than the typical 90 days, which allowed clients to be successful in their treatment regardless of the number of days completed. Thus, the flexible length of stay policy was piloted between February 1st, 2015 and October 31st, 2015, which will be referred to as the 8-month period from this point forward in this thesis.

In summary, the flexible length of stay policy means that youth attending the current agency’s residential treatment program for substance abuse were not required to commit to a full 90 days of treatment. The reason for implementing such a policy is to empower the youth to make their own choices about recovery.

The reasons for considering this a suitable thesis topic are evident. Evaluating the flexible length of stay policy should not only provide the data necessary to determine the efficacy of the program, but the results may show an improvement in other areas as well. In the case that improvements are evident, other similar community agencies may consider implementing a flexible length of stay policy. In addition, perhaps the flexible length of stay policy would allow future clients to be more willing to participate in treatment at the current agency or other community agencies.

**Rationale for Current Thesis Topic**

The purpose of evaluating this policy was to determine if implementing such a policy at a residential substance abuse treatment facility for youth would shorten the average length of stay. If so, this would allow the clients to maximize the benefits they received from their treatment experience while maintaining a sense of control. This study was designed to also determine whether or not this policy had an effect on the number of self, medical, and administrative discharges from treatment. Finally, this research aimed to determine if there was a pattern in reasons for leaving treatment before the recommended 90 days. Overall, the goal was to determine if the flexible length of stay policy had resulted in some positive changes in length of stay, treatment discharge, and reasons for leaving treatment. In addition, it was hoped that this research would provide some insight into client motivation to participate in treatment. Additionally, this preliminary evaluation may provide the agency with some insight into how the policy was affecting their clients and their individual treatment experience.

**Overview**

This preliminary evaluation of the flexible length of stay policy included a literature review, a method section, a results section, and a discussion/limitations section. The literature review included an overview of the research that has been done to examine the efficacy of residential treatment and how duration of treatment may affect substance abuse outcomes. Additionally, it compared and contrasted varying opinions on treatment duration and how the number of days spent in treatment could affect the client’s substance abuse recovery. The method section included a detailed description of its setting, participants of the study, the procedure by which the participants were selected, the necessary materials to complete the research, the design of the study, and the rationale for choosing this method. The results section aimed to provide an overview of the researcher’s findings by summarizing the data. The information gathered from the 8-month period since the flexible length of stay policy was implemented will be compared to the length of stay data from the previous three years, in order to determine its effect. A visual analysis of the data will also be presented and described in the
results section. The discussion/limitations section comprised of a detailed explanation of the results and how that could have impacted clients entering residential treatment for substance abuse. The strengths and limitations of this study will also be included in this section, along with future recommendations for similar projects.
Chapter II: Literature Review

Substance abuse is associated with various negative outcomes such as homelessness, violence, risk of relapse, and severe mental health concerns (van Vugt, Kroon, Delespaul, & Mulder, 2014). In addition, substance abuse has a substantial impact on an individual’s physical and mental health. Therefore, van Vugt, Kroon, Delespaul, and Mulder (2014) emphasized the importance of treating those with concerns of substance abuse. The authors stressed the importance of addressing both substance abuse and mental health concerns in an integrated treatment approach rather than treating the disorders separately.

In an overview of the DSM-5 criteria, Wakefield (2013) explained that the previous substance use and dependence categories have been merged into one, which is now identified as substance use and addictive disorders. The new DSM-5 category for substance use disorders is now being applied to specific types of substance use (i.e., alcohol use disorder) (Wakefield, 2013). An additional change to the DSM-5 criteria noted by Wakefield was to specify the severity of substance use disorder from mild, moderate, to severe, based on the number of symptoms that were identified by the individual. Out of the 11 possible criteria, an individual must identify at least two symptoms in order to meet the diagnostic criteria (Wakefield, 2013).

Prevalence of Substance Abuse

Substance abuse concerns affect a significant number of people in today’s society. The United States’ Center for Behavioral Health Statistics and Quality (2015) analyzed the results from the 2014 National Survey on Drug use and Health. The survey had a target size of 67,500 people, across the different age groups. However, the survey was only delivered to those living in noninstitutional settings. Therefore, those who were homeless, military personnel on active duty, and those living in any form of institution were excluded from the survey. There were two phases to the survey: the screening phase and the interview phase. Each survey was conducted face-to-face in the household. However, in order to ensure the greatest amount of confidentiality and accuracy as possible, the data was collected using an audio computer-assisted self-interviewing system. This self-report system allowed those who completed the survey to listen to questions through headphones and enter the information into the National Survey’s laptop. Although this system may increase confidentiality and the likelihood of accuracy in self-reports, it does not necessarily control for under-reporting of substance use. Furthermore, the survey took place in the home which could further increase the likelihood of underreporting, especially for those living with their caregivers or those who are under the legal drinking age.

The data from the 2014 National Survey on Drug use and Health suggested that nearly 21.5 million people in 2014, aged 12 and over, had a substance use disorder in the past year (The Centre for Behavioral Health Statistics and Quality, 2015). Of that 21.5 million, 17 million were identified as having an alcohol use disorder, while seven million had experienced an illicit drug use disorder. Based on the results of that survey, which only included those living in the United States, it appeared as though substance use disorders are a significant concern, that should be addressed by providing effective and appropriate treatment.

According to Health Canada (2014) and the 2012 Canadian Alcohol and Drug use Monitoring Survey (CADUMS), the frequency of cannabis use in those 15 years and older was 10.2%, with the highest levels of use found in those aged 15 to 24, which was at 20.3% in the year 2012. Based on the results of that survey, the most commonly reported illicit drugs were ecstasy, hallucinogens including salvia, and crack cocaine, with an estimated one percent of Canadians using each type of drug in the past year. A noteworthy finding from CADUMS was
that the rate of youth using the previously mentioned illicit drugs was 6.5%, which was nearly five times greater than the reported use by adults. CADUMS also included questions surrounding the use of three classes of psychoactive pharmaceutical drugs, which were opioid pain relievers, stimulants, and tranquilizers and sedatives. Overall, 24.1% of those aged 15 and older reported the use of psychoactive pharmaceutical drugs and 6.3% reported abuse of drugs in this category (Health Canada, 2014). A more substantial finding made by the 2012 CADUMS was that the rate of youth who reported using psychoactive pharmaceutical drugs increased from 17.6% in 2011 to 24.7% in 2012. More specifically, one in six Canadians reported using opioid pain relievers and 5.2% reported having abused them within the past year. CADUMS also found that youth were more likely to report the use of stimulants (4.9%) than adults aged 25 years and older (0.9%). Of those who reported using stimulants, 40% also reported that they had abused them (Health Canada, 2014). CADUMS also asked questions related to the harm associated with drug use. The 2012 survey found that self-reported harm due to personal drug use was four times higher among youth aged 15 to 24, than adults. The prevalence of self-reported alcohol use in youth decreased from 82.9% in 2004, to 70% in 2012 (Health Canada, 2014). Because the CADUMS survey results are based on phone interview, it is critical to consider the likelihood of under- or over-reporting of self-reported drug and alcohol use by youth when analyzing these results. However, these statistics represented 27,767,855 Canadian residents age 15 and over across 10 providences. Thus, effectively demonstrating the prevalence of substance use and abuse across Canada. These statistics also suggest the need to address these concerns in an effort to assist those who are in need of treatment whether that is in a residential facility or in another form of substance abuse treatment.

**Treatment**

There are various types of treatment and therapeutic approaches used to address substance abuse concerns. Common treatments for substance abuse include outpatient, community-based, computer-assisted therapy, self-help groups, medications, 12-step programs, as well as short- and long-term residential. Extensive research has been done on the effectiveness and the treatment outcomes of each of the aforementioned treatments. However, based on the following research it appeared as though residential treatment was a commonly used treatment for substance abuse concerns. Some residential treatment facilities deliver evidence-based approaches, which could include individual, group, and family therapies. Many residential facilities focus on increasing coping skills, in order to manage life’s stressors in a healthier and more effective manner. Although most residential treatment facilities are in agreement with using evidence-based approaches to treating substance abuse concerns, the opinions are mixed on whether short-term or long-term treatment is most effective. For this reason, it is important to analyze the current research to determine whether treatment duration could influence the outcomes of residential treatment.

This literature review will explore the current research on substance abuse treatment programs. Both long- and short-term treatment durations will be evaluated and the effects of length of stay on treatment outcomes will be examined. In addition to the varying treatment durations, this literature review will investigate other factors that may influence the length of time clients remain in treatment programs.

**Long-term Residential Treatment**

Zhang, Friedmann, and Gerstein (2003) examined differences between short- and long-term residential programs. Their study included 4005 clients from 62 different community-based treatment services, which included methadone maintenance programs, out-patient non-
methadone programs, short- and long-term residential programs. It should be noted that Zhang et al., were only seeking to determine a possible relationship between treatment duration and outcomes. Therefore, they did not specify the type of treatment approach used in the short- or long-term programs. Because of this limitation, it is difficult to conclude that treatment duration was the only factor influencing treatment outcomes. Zhang et al. did not specify an average age of clients who were included in their analytical sample. In evaluating the length of stay, they determined that clients spent an average of 0.7 months in short-term residential (STR) programs and 4.3 months in long-term residential (LTR) programs. Clients who attended LTR substance abuse treatment programs showed greater overall improvements than those who completed an STR treatment program (Zhang et al., 2003). In the case of primary drug use, Zhang et al. found that clients in an LTR treatment program had more significant improvements than STR clients. Most importantly, the study found that there was a positive relationship between treatment duration and drug use outcomes in the LTR treatment programs, but not in the STR treatment programs. However, the study did not specify whether each treatment facility was delivering the same approach.

To investigate the impact of treatment durations on participation in aftercare, Arbour, Hambley, and Ho (2011) studied a group of 445 adults who completed an abstinence-based residential substance abuse treatment program. In order to determine which factors predicted participation in aftercare, Arbour et al., examined pre-treatment substance use, number of days completed in residential treatment, motivation, treatment satisfaction, and demographics. The residential treatment program was completed at Bellwood Health Services in Toronto, Canada. Arbour et al., explained that the abstinence-based program at Bellwood Health Services took a holistic approach to address physical, psychological, social, and spiritual wellbeing. The treatment program included group therapy, as well as psychosocial and spiritual education. The treatment program encouraged clients to apply the information from group therapy and relapse prevention skills to maintain positive behavioural changes and to remain abstinent from substances. In addition to group therapy, clients who attended Bellwood Health Services also received multiple physical health treatment, which included stress management and fitness training (Arbour, Hambley, & Ho, 2011). The program duration ranged from 21 to 80 days with one year of aftercare upon completion of the residential component. In their analysis of predictive factors, Arbour et al., evaluated substance use history and pattern of use by requesting that participants identify the number of years in which substance use had been a concern. In regards to alcohol use, participants were required to report the quantity and frequency of their use. Arbour et al., measured quantity by average number of standard drinks consumed. Additionally, frequency was measured by the number of days the participant drank in the last 6-months. Arbour et al., also evaluated level of drug use. However, only frequency was measured, as there is no standard dose for street drugs.

A logistic regression analysis revealed that each day spent in the abstinence-based treatment program at Bellwood Health Services increased the probability of participating in aftercare by two percent (Arbour, Hambley, & Ho, 2011). In addition, they determined that the number of days completed in treatment would increase the likelihood of participation in aftercare programs by 48%. These findings suggested that longer treatment was critical to engaging clients in aftercare. However, of the 512 participants in their study, 67 did not complete the program due to leaving against the agency’s advice or staff discharge due to relapse or inappropriate behaviour (Arbour, Hambley, & Ho, 2011). This result indicated that although the number of
days completed in treatment increased participation in after-care, many clients did not complete treatment in its entirety.

In a similar study Hambley, Arbour, and Sivagnanasundaram (2010) found that although some clients may maintain positive behavioural changes and abstinence upon completing their first treatment, others may need multiple treatments to gain the same benefits. More specifically, those who were cocaine or poly-substance users were more likely to discharge prematurely, which suggested a need for more than one treatment episode. Hambley et al. studied 512 adults who attended a residential treatment facility. They examined the difference in treatment completion rates for those who used alcohol, versus those who were cocaine poly-drug users. Hambley et al.’s study showed that 95.4% of those who only used alcohol completed the treatment in its entirety. In comparison, only 69.3% of cocaine poly-drug users completed the treatment program (Hambley, Arbour, & Sivagnanasundaram, 2010). These results suggested that type of drug use could have some influence on treatment completion rates and therefore, could result in the need for more than one treatment episode.

Spooner, Mattick, and Noffs (2001) evaluated the outcomes of a comprehensive substance abuse treatment program for adolescents. The intervention was a three-month residential program followed by an aftercare component. Spooner et al. explained that a comprehensive, intensive, and long-term program was necessary to address risk factors and protective factors, as well as the consequences of substance abuse for each individual. Participation in the intervention ranged from periods of less than one day to 18 weeks (Spooner, Mattick, & Noffs, 2011). The median length of stay for the specific intervention was seven weeks. Of the 60 adolescents admitted to the intervention, 27% dropped out. Spooner et al. found that 79% of those who dropped out were more likely to use heroin and 68% had been daily heroin users at baseline. These results are similar to those of the study by Hambley, Arbour, and Sivagnanasundaram (2010), who also found that those who used stronger drugs were less likely to complete residential treatment. Despite having a high drop-out rate, those who attended the intervention for three months were more likely to report a decrease in substance use (Spooner, Mattick, & Noffs, 2011). These results suggested that although attending treatment for a short period of time may produce some benefits, completing the treatment is more likely to decrease substance use.

**Chronic substance abuse.** Moos and Moos (2003) explained that clients who were chronic substance users were more likely to require longer and more intensive treatment. They identified chronic substance abusers as individuals who had attended multiple treatments and had relapsed several times. Moos and Moos’ study included 473 adults with no previous treatment for substance abuse. They predicted that clients, who were less chronic in their substance abuse, were more likely to have a rapid response to first time treatment and that they were more likely to experience positive outcomes with a brief and less intense treatment. Their results showed that 60% of those who attended treatment for 27 weeks or more were abstinent at a one-year follow-up. In comparison, less than 30% of individuals who attended treatment between one to eight weeks were abstinent at the one-year follow-up.

These results suggested that those who attended treatment for a longer period of time were more successful in remaining abstinent long-term. However, those individuals who attended treatment briefly showed substantial improvements over the follow-up period. Moos and Moos (2003) concluded that attending treatment, even for a brief period of time, showed more meaningful results at the follow-up than those who did not attend any form of treatment. In
addition, they noted that longer treatment had a positive effect on social functioning, by increasing coping skills and strengthening their social support systems.

**Critical time period in treatment.** In an evaluation of 23 residential treatment programs, Gossop, Marsden, Stewart, and Rolfe (1999) discovered that longer length of stay increased the chance of positive one-year outcomes. Of the 23 residential programs included in the study, eight were inpatient services and 15 were residential rehabilitation agencies. Gossop et al., explained that several residential rehabilitation programs are offered, including 12-step and Minnesota model programs. However, they also noted that the rehabilitation programs may vary on treatment philosophy, structure, intensity, and duration. The inpatient programs took place in drug dependence units and psychiatric wards, where treatment was supervised by drug dependence specialists.

The study conducted by Gossop, Marsden, Stewart, and Rolfe (1999) included 408 clients with an average age of 29.7 years. Across the 23 programs assessed, the planned treatment durations ranged from two to five weeks. The shorter planned treatment had length of stays ranging from six to twelve weeks, and longer durations ranged from thirteen to fifty-two weeks. The median length of stay was 42 days for short-term programs, and 70 days for long-term programs. Gossop et al. determined that treatment success was not necessarily dependent on the number of days spent in treatment rather it was dependent on the critical time period. They determined the critical time period for short-term programs was 28 days and 90 days for long-term programs. Those who attended treatment for the critical time period determined by Gossop et al. were five times more likely to be abstinent from all target drugs at follow-up. Despite their finding, the number of clients who completed the critical period was still relatively low. Sixty-four percent completed the critical time period of 28 days for short-term programs, and 40% completed the 90 days recommended for long-term programs.

Nonetheless, one third of those who completed a residential treatment program were abstinent and those who left prior to completing the critical time period also showed some improvements in decreased rates of drug use. Therefore, it could be possible to receive some benefit from attending treatment even for a short period of time. Gossop et al., noted that clients who attended the rehabilitation program were more likely to have used stimulants and to have been drinking heavily prior to intake. Conversely, those who attended inpatient treatment had more extensive histories of heroin use. Because of this finding, Gossop et al. (1999) stated that in order to facilitate change in substance abuse, clients must be exposed to and partake in a treatment of suitable quality and intensity.

**Short-term Residential Treatment**

Orešković Bodor, Mimica, Milovac, and Glavina (2013) evaluated the purpose of coerced substance abuse treatment. They explained that even brief exposure to treatment could result in decreased drug consumption. Therefore, Orešković et al. stated that brief interventions could be effective in treating substance abuse, especially in less chronic substance users. This was suggested based on the finding that nearly 50% of people will leave treatment within the first three months (Orešković, Bodor, Mimica, Milovac, & Glavina, 2013). It should be noted that Orešković et al. did not specify which study or age range these statistics were based on. However, this finding was supported by Moos and Moos (2003), who found that although longer treatment had more significant outcomes, attending treatment for a short amount of time had superior outcomes than those who did not attend treatment at all. In addition to supporting shorter treatment programs, Orešković et al. suggested that abstinence-based programs may not be suitable for everyone. The reason for this is that it brings a sense of punishment, which may
increase the risk of failure, especially in those with more severe substance abuse (Orešković, Bodor, Mimica, Milovac, & Glavina, 2013).

In contrast to typical studies that defend the efficacy of longer treatment programs, Harris, Kivlahan, Barnett, and Finney (2012) argued that a longer length of stay was not superior to shorter treatment durations. They reviewed 61 substance abuse residential rehabilitation treatment programs, which included 1307 veterans. The rehabilitation program included in the study consisted of inpatient, intensive outpatient, outpatient, methadone, domiciliary, and residential. However, it should be noted that the authors did not specify what treatment approaches were used at each of rehabilitation programs. Therefore, it is not clear as to whether the same approach was used at all six programs. It should be noted that the average age of participants was not provided in this study. Harris et al. found that the average length of stays ranged from 14 to 119 days. In examining these programs, they determined that length of stays longer than 90 days had the least improvement as measured by the results of the Alcohol Severity Index and significantly less improvement in substance use outcomes. Harris et al. found that these outcomes were inferior to treatment programs with an average length of stay less than 45 days. These results led Harris et al. to question the belief that longer is better. They stated that longer treatment may not necessarily be better in all contexts and therefore, it should not be assumed that longer treatment is more effective. They suggested that it is essential to revise the idea of set program lengths and transition toward providing treatment until each individual’s goals can be achieved.

**Other Factors Impacting Length of Stay**

Although length of stay in residential treatment may be an important factor in increasing substance use outcomes, there are other factors involved in increasing positive treatment results. These factors could have some influence on the amount of time clients are remaining in treatment. In addition, these factors could provide a degree of explanation as to why some clients have made the decision to leave treatment prematurely.

**Psychosocial factors.** In an evaluation of residential treatment for youth with substance abuse concerns, Mills, Pepler, and Cribbie (2013) paid more attention to specific characteristics that influence treatment outcome. Their study included 209 youth aged 13 to 19 who attended a 10-month residential treatment program, which included up to one year of aftercare. Mills et al. found that factors such as having divorced parents and gender differences could have an impact on treatment outcomes. They stated that youth with divorced parents were at a greater risk for early involvement in substance use and were more prone to exhibit risky drinking behaviour. In addition, Mills et al. suggested that there was some evidence to suggest that youth with divorced parents were less likely to complete treatment. Gender differences may also play a role in treatment outcomes, as Mills et al. determined that treatment completion rates were higher in females than males.

Dodge et al. (2009a) explained that the onset of substance use could be explained by a dynamic cascade model, which begins in an individual’s childhood. They asserted that heritability of substance abuse concerns from parents could pose a risk for substance abuse in adolescence. However, Dodge et al. claimed that genetic expression of substance abuse behaviour would only occur in specific environments, which meant that life events could further increase the risk of substance abuse concerns. In addition, they examined a number of early childhood risk factors to substance abuse, such as parental stress and low familial socioeconomic status. Dodge et al. also determined that early childhood behaviour could also be a predictor in early onset substance abuse. They identified aggression toward peers as one of the more reliable
predictors of substance abuse in adolescence. Additionally, peer rejection was recognized as a potential contributing risk factor (Dodge et al., 2009a). Essentially, they identified early childhood and adolescent problems with family and peers to be predictive factors of substance abuse. Dodge et al. (2009a) hypothesized that youth who associated with a deviant peer group involved in aberrant activities and culture were more likely to engage in substance abuse. They also hypothesized that low parental supervision in adolescence would further mediate the risk of substance abuse. It was determined that there could be a transactional effect between peer relations and parenting. Dodge et al. confirmed their hypothesis by identifying those early problems with peer relations could precipitate the development of substance abuse concerns. In addition, they stated that parents with little involvement in their child’s lives and those who support the use of aggression as a means a problem-solving are more likely to have children who develop difficulty with peer interaction. Thus, increasing problem behaviour, especially substance use, in adolescence (Dodge, et al., 2009b).

Mental health. Shane, Diamond, Mensinger, Shera, and Wintersteen (2006) conducted a study on whether victimization influences the outcomes of adolescent substance abuse treatment. Their study included 975 youth who were either in outpatient or residential treatment, which ranged from a period of three to 12 months. The most significant finding made by Shane et al. (2006) was that more females reported severe trauma histories, which was associated with significantly greater problems related to substance abuse even after completing treatment. Similarly, Mills, Pepler, and Cribbie (2013) found that females were more likely to report depressive symptoms, suicidality, and a history of sexual abuse, while males tended to report criminal involvement. However, this finding could be attributed to concerns related to self-reports and socialization differences between genders. Gender differences are evident in the self-reports made by the participants in the study by Mills et al., as it is more likely for males to report criminal behaviour and other externalizing problems, while females are more likely to report internalizing problems, such as depression. Regardless of potential gender differences, Mills et al. estimated that 63% of youth who enter residential treatment have a history of abuse, whether it was physical, sexual or emotional. Unfortunately, a history of abuse also decreased the likelihood that treatment was completed (Mills, Pepler, & Cribbie, 2013). The final influential factor noted by Mills et al. was comorbid disorders. They stated that comorbid substance abuse and mental health affects between 50 to 75 percent of youth. Furthermore, those with comorbid disorders are at a greater risk for not completing treatment.

Although it appears that many factors may be working against successful treatment completion for youth, Mills et al. believed that residential treatment might be able to interrupt the pattern of substance abuse by teaching more effective coping methods for life stressors. They concluded that any amount of time spent in treatment is superior to not attending treatment at all. Nonetheless, longer stays and treatment completion were associated with increased rates of post-treatment success.

Shane, Jasiukaitis, and Green (2003) supported the findings of Mills et al. (2013). Shane et al. (2003) assessed the differences between externalizing and internalizing mental disorders in 419 youth with substance abuse concerns. The youth were selected from three different residential treatment programs of both long- and short-term durations. The mean age of participants in the study was 15.9 years, with a median length of stay of 31 days. Shane et al. found that 68% remained in treatment for less than 32 days and 85% stayed for less than 66 days. Shane et al. determined that among the youth population, attention deficit hyperactivity disorder (ADHD) and conduct disorder, appeared to be significant factors in shortened length of stay in
residential treatment. They found a correlation between conduct disorder, treatment drop out, and negative treatment outcomes. Shane et al. found that having a specific psychiatric or emotional problem decreased the likelihood that youth would remain in treatment long enough to receive the most beneficial experience. This finding was supported by Battjes, Gordon, O’Grady, and Kinlock (2004) who also found that youth who reported emotional problems were more likely to exit treatment prematurely.

**Type of substance abuse.** Battjes, Gordon, O’Grady, and Kinlock (2004) evaluated youth, ages 14 to 18, who attended an outpatient substance abuse program. The majority of participants remained in treatment for over 90 days and the median was 98 days. They found that treatment retention was problematic in certain subgroups. More specifically, youth who restricted their substance use to alcohol and marijuana terminated their treatment earlier than those who were using harder substances. Battjes et al. attributed this finding to the challenge associated with engaging youth in the early stages of their substance abuse. These outcomes highlighted the importance of engaging youth in treatment during the early stages of substance abuse.

**Summary**

Based on the research literature reviewed, it is likely that those who attend treatment for a longer period of time have more significant long-term positive outcomes. However, it is also possible that attending treatment for a short period of time will have some positive outcomes, especially if it is the first attempt in a treatment program and the substance abuse is less chronic. Moreover, it is important to address the needs of youth, as it appears to have a substantial effect on their engagement in treatment, as well as their treatment outcomes. The research reviewed suggests the importance of addressing mental health concerns, as it is apparent that both comorbid disorders and a history of victimization or trauma could have a substantial effect on successful completion of substance abuse treatment. It appears as though many of the individuals who drop out or are discharged prior to completion, are those with comorbid mental health disorders, and those who were using harder substances prior to entering treatment. Therefore, it is hypothesized that although long-term treatments show more positive results, attending treatment for a short period of time may also produce positive outcomes. In those making a first attempt in a treatment program and those whose substance abuse is less chronic. The research presented within this literature review shows the need to evaluate the flexible length of stay policy currently implemented at the current agency, and how this policy could affect the agency’s clientele.
Chapter III: Method

Setting

Agency. The agency is a non-profit organization, funded by a private foundation. The agency’s purpose is to provide a residential substance abuse treatment program for youth. This agency operated two 24-hour residences, one for females and one for males. The agency functioned under a harm-reduction approach; however, the residences were 100% substance-free environments. The agency offered a residential treatment program that consisted of 90 days in-house treatment followed by 90 days of aftercare. Throughout the residential treatment program, clients were required to complete weekly one-on-one sessions with their therapist, as well as daily group therapy. One of the evidence-based treatment approaches used for group therapy was Seeking Safety (Najavits, 2002). Seeking Safety was established by Najavits (2002) as a treatment approach specifically developed for post-traumatic stress disorder and substance abuse. Additionally, the residential treatment program implemented a contingency management program to encourage youth to remain engaged in the treatment program.

Residences. The female residential facility included 10 beds, with two individuals to each room. The male residential facility comprised of 14 beds, with two individuals to each room as well. Each facility was equipped with a common area, which included a television, an exercise area, a dining room, and a kitchen facility. Staff within the residential facilities included addiction counsellors, addiction therapists, administration staff, overnight support workers, and a nurse practitioner. Addiction counsellors and overnight support workers worked at the facilities 24 hours a day, 7 days a week in order to ensure that all clients were safe at all times. Each residential facility provided academic programming, group and individual counselling sessions, and therapeutic recreational activities. The interventions focused on teaching skills related to communication, problem solving, pro-social recreation, relapse prevention, job finding, and anger management.

Participants

Staff participants. The only direct participants in this study were agency staff. In order to be included, staff had to be currently employed within at least one of the two residential facilities. The participants were comprised of addiction counsellors, addiction therapists, assertive continuing care counsellors, and family therapists. Staff participated in this study regardless of whether they had been employed by the agency prior to or after the implementation of the flexible length of stay policy.

It is important to note that because staff did not participate in any direct interventions related to this thesis, consent was not required.

Consent Procedures

No direct consent was needed for the purpose of this study; however, the clinical director of the agency provided consent by signing the consent form (Appendix A). This provided the student researcher with the consent to collect and analyze archival data of past clients and to present the data in a public forum. Individual consent was not required, as the past clients had already provided the agency with consent to collect such information when they entered the residential treatment program.

Materials

The materials used for this research were an agency computer, BestNotes software, discharge reports, frequency recording sheets, a Microsoft Excel database, and the staff survey
Microsoft Excel was used to create the frequency recording sheets, which facilitated easy calculation of the mean.

**BestNotes.** BestNotes (2016) is an electronic health record database system. This computer software allowed agency staff to share client information, create group notes, and track clients’ progress over time. In addition, BestNotes allowed agency staff to use specific templates for notes, such as discharge reports. The specific discharge report template in the BestNotes software allowed the agency to stay consistent and to provide the necessary information for each client.

**Excel database.** The Excel database was created by the student researcher for data collection purposes. The database had four tabs; each tab represented one sheet of data. Two separate identical databases were established, one for females and one for males.

**Female data.** The first tab, *female data*, included three columns and was used to collect general, preliminary information on past clients. The three columns were comprised of data for length of stay in days, type of discharge, and reasons for leaving. The second tab was called *female details* and was comprised of frequency data related to the four types of discharge. Within this tab, a table was created for type of discharge, which contained four columns. The four types of discharges included were self-discharge, administrative discharge, medical discharge, and graduation/completion. A second table was created within this sheet to present data specifically for the length of stay for clients who received a graduation/completion.

**Male data.** The first tab, *male data*, was also comprised of three columns. This tab contained the preliminary data collected on past clients who attended treatment within the 8-month period. Within this tab, three columns summarized the data for length of stay in days, type of discharge, and reasons for leaving. The second tab within the male database was called *male details*. This tab contained the frequency data related to the four types of discharge; self-discharge, administrative, medical, and graduation/completion. A table was created within this sheet, which was used to present data specifically related to length of stay for clients who received a graduation/completion.

**Frequency recording sheets.** Two separate recording sheets were created using Microsoft Excel. The initial recording sheet included data for days completed in treatment, and type of discharge from treatment. The same data were collected for both males and females. These data were then separated into the following tables: type of discharge, length of stay for graduation/completion, and average length of stay for type of discharge. Male and female data remained separate within the Excel database.

**Measures**

**Staff survey.** The staff survey was created by the researcher using an online survey creator called Survey Monkey. The survey consisted of 10 multiple-choice questions related to the flexible length of stay policy. Each question had between two to five possible response options, depending on the question. Only one question had a *yes* or *no* response option and one question was used to identify the staff’s position within the agency. The remaining questions had the following response options, rated on a 5-point scale: *strongly agree, agree, neutral, disagree,* and *strongly disagree.* Survey Monkey provided a web link to the survey, which was sent to agency staff via email.

**Days completed in treatment.** One frequency recording sheet was created for number of days completed in treatment. One column represented less than 30 days completed, 30 days completed, 90 days completed, and more than 90 days completed. A second frequency recording
sheet was created using the same columns to collect the length of stay data specifically for those clients who received a graduation/completion. These data were presented in separate recording sheets for females and males.

**Type of discharge.** A second frequency recording sheet was created for type of discharge. This recording sheet included four columns, one for self-discharge, a second for administrative-discharge, a third for medical discharge, and a fourth for graduation/completion. These data were collected for both males and females in separate recording sheets.

**Data Collection**

**Archival data.** Data were collected from the discharge summaries of past clients. The BestNotes software allowed the student researcher to produce a weekly occupancy report, which provided a list of both male and female clients who attended treatment during the 8-month period. Within the weekly occupancy report, the number of days completed in residential treatment and type of discharge was also provided for each client. In addition, a file review was completed for those who self-discharged or received a graduation/completion certificate for completing 80 days or less. Each client file included a discharge summary, which was reviewed by the student researcher. The discharge summaries provided details regarding the client’s length of stay and reason for discharge.

It is important to note that clients who were currently in residential treatment at the agency were excluded from the study, as the agency would not allow data collection on current clients. To protect client confidentiality, all data were entered in a separate Excel spreadsheet, which did not include any client names. The Excel database contained only information surrounding the number of days spent in treatment, type of discharge, and the reasons for leaving treatment for each individual. The Excel database was kept on a password protected agency computer and will be destroyed at the agency’s discretion in the future.

**Staff data.** Survey Monkey provided a summary of the data for each question in the survey. These data were presented on Survey Monkey as frequency recording sheets and bar graphs. Survey Monkey also provided the frequency of responses in percentages. The student researcher used the frequency of staff responses to each of the 10 survey questions to determine the staff opinions regarding the flexible length of stay policy. These data were presented using a frequency recording sheet and a graph for each question.

**Design**

This study was a non-experimental design. The independent variable for this research was the flexible length of stay policy. The dependent variables were the mean length of stay since implementing the flexible length of stay policy, staff survey results, number of days completed in treatment, number of clients who self-discharged, number of clients who were discharged by administration, number of clients who were discharged for medical reasons, and reasons for leaving treatment.

**Data analysis.** The average length of stay was calculated for all clients who attended treatment during the 8-month period. To allow for more detailed examination, the average length of stay was also calculated for each type of discharge for this same group. The agency had collected the average length of stay data for the previous three years, excluding the 8-month period. The average length of stay data for the 8-month period was compared to that from the previous three years.

A table was created to examine length of stay specifically for those who graduated/completed the residential program. This table included four columns on length of stay, which were less than 30 days, 30 to 59 days, 60 to 89 days, and 90 days or more. An additional
table was also created to present average length of stay data collected from the 8-month period. However, the latter provided broader data for length of stay, which included data for all four discharge types. This data sheet also included information regarding the average length of stay for the corresponding gender, as well as average length of stay for each discharge type.

**Staff survey.** The raw data from the staff survey were presented in a table (Appendix C). The table included the frequency of responses for each response option provided, for questions 3 to 10. The 5-point scale used to collect responses was converted to a scale ranging from -2 to +2, in order to report results. Therefore, strongly disagree responses would be converted to a score of -2 and strongly agree responses would be converted to a score of +2. The other response options would also follow this rating scale. Using these converted scores, the average response was calculated in order to present a numerical representation of average responses for questions 3 to 10.

**Presentation of data.** Tables provided a visual representation of the frequency recording sheets, as well as the average length of stay by gender. The comparison of mean length of stay for the past four years including the 8-month period was also displayed using a table.

**Procedure**
Initially the student researcher used the BestNotes software to produce the weekly occupancy report for the 8-month period. This weekly occupancy report was reviewed and the necessary data were extracted and entered into the Excel database. To begin the data collection, the student researcher focused on extracting the general information from the weekly occupancy report. The first frequency recording sheet to be completed was the one that included each past client’s length of stay, type of discharge, and reasons for leaving. It should be noted that data were only collected for reasons for leaving if the client self-discharged or received a graduation/completion prior to completing 80 days of treatment. The information was recorded in the Excel database exactly as it was found in the weekly occupancy report, excluding the client names. This information was entered into separate frequency recording sheets for both females and males.

Once all of the data had been collected, the student researcher determined which files were necessary to review. File reviews were only completed for those who self-discharged and for those who received a graduation/completion for 80 days or less in residential treatment. The student researcher returned to the weekly occupancy report created on BestNotes and searched each individual client who met the previously stated criteria. Each file included a discharge report, which documented the individual’s reason for leaving treatment. These details were recorded in the Excel database in the corresponding columns. Frequency recording sheets were used to organize data from the discharge reports, which were then entered into the Excel database.

Subsequent recording sheets were created and completed using the data mentioned above. For example, more detailed frequency sheets were used to present specific details for types of discharge. In order to complete these frequency sheets, the student researcher extracted data from the previously recorded information. The student researcher counted the number of females who self-discharged from treatment and this information was then recorded in the corresponding column. These frequency sheets were also separated for males and females. However, the same information was recorded for each.

Overall, the student researcher was able to obtain data for 45 females and 50 males who attended treatment within the 8-month period.
Chapter IV: Results

The goal of this study was to determine the effects of a flexible length of stay policy on the average length of stay in a residential treatment facility. Data on the average length of stay was collected for 101 past clients who attended treatment during the 8-month period. The agency provided the average length of stay data for the three previous years, 2012 to 2015. In addition, a staff survey was created to determine the opinions of staff regarding the flexible length of stay policy and its effect on clients of the agency. The following data examined the average length of stay across the four collection periods, the average length of stay for each type of discharge during the 8-month period, frequency for each type of discharge during the 8-month period, and frequency of graduation/completion across four time ranges during the 8-month period.

Archival Data

**Average length of stay.** The average length of stay was compared between the three-year collection period and the 8-month period. The average length of stay appeared to vary from 32.5 to 63 days throughout the three years of data provided by the agency. Interestingly, upon implementing the flexible length of stay policy, the average length of stay decreased slightly to 54 days during the 8-month period. The average for all four periods are presented in Table 1 below.

<table>
<thead>
<tr>
<th>Collection Period</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>32.5</td>
</tr>
<tr>
<td>2013</td>
<td>63</td>
</tr>
<tr>
<td>2014</td>
<td>58</td>
</tr>
<tr>
<td>8-month Period</td>
<td>54</td>
</tr>
</tbody>
</table>

**Average Length of Stay by Type of Discharge.** The data set represented the average length of stay for each type of discharge during the 8-month period, which is displayed in Table 2 below.

**Females.** The longest average length of stay was in the *graduation/completion* category, with an average of 77 days. *Medical-discharge* resulted in an average length of stay of 46 days. *Self-discharge* followed with an average length of stay of 33 days. Finally, *administrative discharge* had the lowest average length of stay with females staying 23 days.

**Males.** Eighty-four days was the longest average length of stay for males who graduated/completed the treatment program. *Self-discharge* resulted in an average length of stay of 20 days as compared to *administrative discharges* with the lowest average length of stay at 19 days. It should be noted that there was no average length of stay for *medical discharge*, as no males were medically discharged from the facility during the 8-month period.
Although there were differences in length of stay between genders, the rank order of the types of discharge were the same for the three types that had data: longest for graduation/completion and shortest for administrative discharge.

One-way ANOVA. The results of a one-way ANOVA indicated that there was no statistically significant difference between gender and average length of stay at the specified .05 level, \( F = 0.164 \) and \( p = .699 \). The post hoc test could not be performed, as there were fewer than three groups included in the ANOVA.

Table 2
*Average Length of Stay for Each Type of Discharge by Gender*

<table>
<thead>
<tr>
<th>Type of Discharge</th>
<th>Average</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>33</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Administrative</td>
<td>23</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Medical</td>
<td>0</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Graduation/Completion</td>
<td>77</td>
<td>84</td>
<td></td>
</tr>
</tbody>
</table>

Type of Discharge Frequency. Upon determining the average length of stay for all 101 past clients during the 8-month period, the data were separated by gender. Table 3 presents the frequency for each of the four types of discharge for females and males during the 8-month period.

Females. *Graduation/completion* had the greatest frequency for females, with a total of 22 females completing the program. This indicated that there was a 48.88% completion rate for females during the 8-month period. Of the 45 female clients, 35.55% self-discharged from the residential program against staff recommendations. *Administrative discharges* occurred at a much lower rate with only 11.11% of females who were asked to leave the residential treatment facility for reasons determined by the administration. The lowest frequency was for *medical discharge* with 6.66% females leaving treatment for medical reasons.

Males. The greatest frequency was observed in the *graduation/completion* category, with 28 males completing the residential program. This indicated a 50% completion rate for males during the 8-month period. Self-discharge and administrative discharges were close in frequency for males, with self-discharge being 23.21% and administrative discharge being 26.78%. It should be noted that no male clients were medically discharged during the 8-month period.

Chi-Square. The chi-square test was conducted to determine if the distribution of frequencies was statistically significant across genders. The chi-square statistic for Table 3 indicated that there was no statistically significant difference between genders at the specified .05 level, \( \chi^2 = 6.91 \) and \( p = .074 \).

T-test. A t-test was used to identify a possible statistically significant difference between genders for the frequency of discharge for all four types. The results indicated that there was no statistically significant difference between genders at a significance level of .05 (\( t = 0.317, p = .361 \)).
Table 3
Frequency for Type of Discharge by Gender

<table>
<thead>
<tr>
<th>Type of Discharge</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Self</td>
<td>13</td>
</tr>
<tr>
<td>Administrative</td>
<td>15</td>
</tr>
<tr>
<td>Medical</td>
<td>0</td>
</tr>
<tr>
<td>Graduation/Completion</td>
<td>28</td>
</tr>
</tbody>
</table>

Graduation/completion. Because the flexible length of stay policy allowed the clients to make decisions on length of stay based on their individual needs, the frequency of graduation/completion was gathered for several time ranges. In order to further analyze the graduation and completion data, four time ranges were created; less than 30 days, 30 to 59 days, 60 to 89 days, and 90 + days. Data for frequency of graduation/completion are included in Table 4 below.

**Females.** The highest frequency for graduation/completion was in the 60 to 89 day range, as 41.37% of females who graduated or completed the residential treatment program during this period. Following closely behind was the 90 days or more range, with 37.93% females who completed treatment during this time. In the 30 to 59 day range, 20.68% females received a completion certificate. The lowest frequency was seen in the less than 30 days time range, as no females completed treatment within this range.

**Males.** The highest frequency was seen in the 60 to 89 day range with 41.93% of males who graduated/completed the residential treatment program during this time range. The second highest frequency of graduation/completion was in the 90 days or more range, with 35.48% males who completed the full 90 days of residential treatment. Of the remaining time ranges, 22.58% of males received a completion certificate in the 30 to 59 day range and 3.22% received a completion certificate in the less than 30 days time range.

**Chi-square.** A chi-square test was conducted to determine whether a statistical difference between genders was detected for graduation/completion length of stay for the data in Table 4. The results indicated that there was no statistically significant difference between gender and length of stay at the specified .05 level ($\chi^2 = 0.974$, $p = .807$).

**T-test.** A t-test for two independent means with a one-tailed hypothesis was completed in order to determine whether a statistical significance was present between genders. Based on the results, it was concluded that the results were not significant between genders at a specified level of .05 ($t = 0.130$, $p = .450$).
Table 4
*Frequency for Graduation/Completion Length of Stay by Gender*

<table>
<thead>
<tr>
<th>Time Range (days)</th>
<th>Frequency</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30</td>
<td></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>30-59</td>
<td></td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>60-89</td>
<td></td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>90+</td>
<td></td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

**Staff Survey**

The staff survey was provided to all staff members of the agency, which were approximately 60 people. A total of 31 responses were returned, which indicated that approximately 51.66% of staff completed the survey. With the exception of Questions One and Two, the raw data for the frequency of responses for each question has been displayed in Appendix C.

**Question One.** The current position of the respondent was identified. Of the 29 respondents, 82.75% were addiction counsellors, 10.34% were addiction therapists, and 6.89% were after-care counsellors. The majority of respondents were addiction counsellors from either the female or male residential facility. It should be noted that two responses were missing, as the respondent did not select their position within the agency.

**Question Two.** The frequency of responses suggested that the majority of respondents, 67.75%, were employed by the agency prior to the implementation of the policy and the remaining 32.26% had not.

**Question Three.** According to the responses, 54.84% of staff disagreed that the flexible length of stay policy had a negative effect on clients with an additional 9.68% in the strongly disagreed category. The second highest response option chosen by staff was neutral with a 29.03% endorsement. The remaining 6.45% of respondents strongly agreed that the flexible length of stay had a negative effect on clients. The average response was 1.3, which indicated average responses ranged between strongly agree and agree.

**Question Four.** The majority of respondents, 74.19%, agreed that the flexible length of stay policy had a positive effect on clients overall and 6.45% strongly agreed. Approximately sixteen percent of respondents were neutral, and 3.23% strongly disagreed that the policy had a positive effect on clients. The average response score of 1.1 indicated that on average, respondents agreed with the policy having a positive effect on clients.

**Question Five.** The results indicated that 64.52% of staff agreed that the policy had increased client motivation. The second highest frequency, 22.58%, reported being neutral in regards to increased client motivation due to the implementation of the policy. However, 64.52% of the respondents disagreed with the flexible length of stay increasing client motivation.

**Question Six.** According to the results, 35.48% of respondents agreed that the flexible length of stay policy had decreased the frequency of administrative discharges. Both neutral and disagree response options were selected by 25.81% of respondents. Of the remaining responses, 9.68% of respondents strongly disagreed that the flexible length of stay led to a decrease in
administrative discharges, while 3.23% strongly agreed. The average score was 1.1, which indicated that on average, respondents agreed that the policy led to a decrease in administrative discharges.

**Question Seven.** The results indicated that 41.94% of respondents held a position of neutral towards the flexible length of stay policy leading to a decrease in the number of clients who attended treatment for 90 days. Moreover, 38.71% disagreed that the policy had decreased the number of clients who attended treatment for 90 days. In contrast, 12.90% of respondents agreed that since the policy had been implemented, the number of clients who attended treatment for 90 days had decreased and 6.45% of respondents strongly agreed with this. The obtained average score of 1.1 indicated that on average, staff agreed that the policy had led to a decrease in the number of clients who attended treatment for 90 days.

**Question Eight.** The majority of respondents disagreed that the policy had led to reduced aggression at the residential facilities, as 41.94% chose the disagree response option and 51.61% endorsed neutral. However, 6.45% agreed that the flexible length of stay policy led to fewer instances of aggression at the residential facilities. Regardless of these percentages, the 5-point rating scale resulted in an average score of 1.1, which indicated that average responses endorsed agreement with reduction in rates of aggression.

**Question Nine.** The highest frequency of staff responses, 54.84%, indicated agreement that the policy had led to a decrease in self-discharges from the residential treatment program. In addition, 12.90% of respondents strongly agreed with this. Conversely, 16.13% of respondents were neutral, 9.68% disagreed, and 6.45% strongly disagreed that the flexible length of stay policy had led to a decrease in the number of clients who self-discharged. However, the average response was scored as 0.7. This score indicated average responses ranged between a neutral and agree position regarding the possible decrease in self-discharges.

**Question Ten.** Of the respondents, 70.97% agreed that the flexible length of stay policy allowed for a more positive stay in residential treatment, which was supported by the 5-point scale with a score of 1.0. The neutral response option accounted for 19.35% of responses while the disagree option accounted for 6.45% of responses. Only 3.23% of respondents strongly agreed that the policy allowed for a more positive stay.
Chapter V: Discussion

The primary purpose for evaluating the flexible length of stay policy was to determine the effect it would have on the average length of stay at a residential treatment facility for youth. In addition, the current study was designed to determine whether the flexible length of stay policy would have an effect on the number of self, medical, and administrative discharges, as well as graduation/completion rates. Finally, the reasons for leaving treatment were examined in order to determine whether a pattern emerged for those who self-discharged and those who graduated/completed the program at 80 days or less. The data indicated that the average length of stay decreased during the 8-month period, when compared to the three previous years and it may be that the implementation of the flexible length of stay policy was a factor in this finding. Thus, the hypothesis was not supported. Because no data were provided for the frequency of each discharge type prior to the 8-month period, it was not possible to determine whether these rates were affected. Additionally, no pattern was evident in the reasons for leaving treatment for those who self-discharged or those who received a graduation/completion certificate for 80 days or less in treatment.

Interpretation of Findings

Based on the research gathered for the literature review, longer length of stays in treatment resulted in superior results as compared to those who remained in treatment for a shorter period of time. However, some positive outcomes were observed for those who attended treatment for a shorter length of time, especially when compared to those who did not attend any type of treatment (Moos & Moos, 2003). Additionally, Gossop, Marsden, Stewart, and Rolfe (1999) noted that there could be a critical time period in treatment, which was 28 days for short-term programs, making success five times more likely. Although the average length of stay decreased during the 8-month period in the current study, it is possible that even those who remained in treatment for a period that was shorter than the recommended 90 days may have received some benefits during their stay at the residential facility. Because many of the past clients who attended treatment during the 8-month period stayed for at least 28 days, it could be possible that some of them were successful in reducing their substance abuse upon completing treatment. However, the current study did not have the follow-up data to investigate the treatment outcomes of past clients.

The research included in the literature review also emphasized the importance of considering psychosocial factors, type of substance abuse, history of abuse or trauma, and mental health concerns when determining common reasons for leaving treatment prematurely. Mills, Pepler, and Cribbie (2013) found that psychosocial factors could influence treatment outcome. For example, those with divorced parents were less likely to complete treatment. Although the current study did not examine these factors specifically, it could be possible that such factors could have played a role in the reasons for premature termination of treatment. In addition, Mills et al. also found that females are more likely to complete treatment than males. The current study does not support this finding. Additionally, the t-tests performed on the data included in Table 3 did not show a statistically significant difference between genders. This result could be attributed to the fact that there were more male than female clients overall. Another factor to be considered when examining treatment completion rates is comorbid substance abuse and mental health concerns because those with comorbid disorders are at a greater risk for not completing treatment (Mills, Pepler, & Cribbie, 2013). Therefore, it could be possible that comorbid disorders played a
role in the decrease in average length of stay; however, the current research did not have sufficient data to make a definite conclusion on this matter.

Regarding the average length of stay for each type of discharge, the differences in frequency were evident when comparing males versus females. Excluding graduation/completion, females had the highest frequency for self-discharge. Based on the research for reasons for leaving, homesickness, cravings to use substances, or difficulty with interpersonal relationships may have been the explanations for the findings of the present study. It appeared to be more likely for females to self-discharge in order to be with their partner or family, or because they were experiencing difficulty interacting with peers. Although more males had administration discharges, self-discharge followed closely behind.

The reasons for males to self-discharge from the research were related primarily to decreased motivation, regressing behaviours, or feeling as though residential treatment was unnecessary. The rate of self-discharge for males in the present study could be attributed to impulsive decisions based on cravings to use substances or difficulty complying with rules they are not typically subjected to. However, no further conclusions could be made, as these data from previous years were not available. It should be noted that the previously mentioned information refers to possible explanations based on those highlighted in the literature, but not supported by data from the current study.

In the current study, no pattern was evident in reasons for leaving treatment prematurely. However, many clients left for reasons such as homesickness, cravings to use substances, difficulty with interpersonal relationships, regressing behaviours, having an anger episode, and walking off property without staff permission. Furthermore, the client’s reasons for leaving treatment were unclear in many cases. In contrast, many of those who received a completion certificate for a stay of 80 days or less had a positive planned departure, which was decided in conjunction with their therapist. The research presented in the literature review suggests the importance of considering other factors that could be affecting the length of stay and addressing those needs accordingly. In doing so, it could potentially lead to longer stays in residential treatment.

The current study also included a staff survey to determine staff opinions regarding the flexible length of stay policy and its effect on the agency’s clients according to the index scores. Generally, the index scores indicated that the majority of respondents agreed that the flexible length of stay policy had led to increased client motivation and a more positive stay in residential treatment. Based on the raw data, it appeared as though staff opinions were not clear with regards to reduced administrative discharges and reduced aggression at the residential facilities. However, upon examining the index scores it appeared as though, on average, staff agreed with a reduction in the frequency of administrative discharges and levels of aggression. Although the results from the survey suggest that, on average, staff are under the opinion that the flexible length of stay policy has led to some positive outcomes, it is not possible to conclude that the policy is the sole factor in behaviours changes of clients. It is also imperative to consider differences in staff opinions based on gender, as most staff work primarily at one facility or the other. Moreover, the data indicated that administrative discharges occurred more frequently at the male facility.

**Strengths**

With the data available, the current research was able to compare the average length of stay during the 8-month period to the prior three years. Although the hypothesis was not supported, and the average length of stay decreased upon implementing the flexible length of
stay policy, it provided the agency with some preliminary information regarding the effect of the policy. In addition, inferences were made related to other factors that could be affecting the length of stay, which could be helpful when conducting future research.

Limitations

The primary limitation of the current study is that past client data, prior to the 8-month period, were unavailable. Therefore, it was impossible to use statistical analyses or make any reliable conclusions about the findings. No comparisons between the three yearly periods and the 8-month period could be made for types of discharge, as these data were not provided by the agency. Because of this limitation, it was not possible to determine whether the flexible length of stay policy could have affected the average length of stay for clients who were discharged by administration, were medically discharged, or those who chose to self-discharge.

Another limitation is that this study was a non-experimental design and there was no control for other factors. As such, it would be impossible to conclude that the flexible length of stay policy was the sole factor in decreasing the average length of stay during the 8-month period. Therefore, there could be many other factors influencing a decrease in the average length of stay such as, mental health or medical concerns of the clients, other agency administrative policy changes related to length of stay etc.

Multilevel Challenges

Client level. At the client level, there were many challenges presented in working with youth who have substance abuse concerns. However, one of the precipitating factors was that the majority of the youth also experienced co-occurring mental health symptoms. Because of this, many of the clients experienced difficulty with remaining engaged in the treatment program. On several occasions, clients would either run away from the treatment facility or make the choice to leave early.

Program level. Although the residential facilities provided evidence-based treatment programs, it was not individualized to fit each client’s needs; therefore, making it difficult to keep all clients engaged, especially in cases where they felt as though the material did not apply to them. Additionally, the therapeutic groups appeared to be largely based on the counsellors explaining different concepts, which did not leave much opportunity for the clients to speak about their experiences. The material was also focused primarily on substance abuse, which makes sense, as it is a treatment facility for youth with substance abuse concerns; however, it could have been beneficial to include some psychoeducation regarding mental health concerns.

Organization level. The agency used a contingency management (CM) program, as a means of keeping the youth engaged in the treatment. However, the CM program was not individualized, which posed some concerns with effective reinforcement. The staff and agency supervisor did not appear to have a thorough understanding of how CM works, further increasing the difficulty of effectively implementing the program. Staff inconsistency was also a significant contributor to its ineffectiveness as some staff would take away points for things that other staff may not. These informal observations were corroborated by some of the clients, as some residents mentioned concerns regarding inconsistencies during informal conversations. During such conversations, some clients also mentioned that they did not care about the points system, and therefore would not follow the rules. From a behavioural perspective, the client dissatisfaction with the CM program could have been due to the fact that it was not individualized and perhaps the reinforcers were not powerful enough to motivate them to engage in appropriate or desired behaviour.
Societal level. Unfortunately, stigma surrounding mental health and substance abuse concerns is still problematic. Many of the youth expressed their worry about returning to the community and being judged for attending a residential treatment program. Although the treatment program taught skills such as seeking employment and relapse prevention, it is not necessarily easy for the youth to generalize these skills to the community once they complete treatment. In addition, because the youth will return to a society in which alcohol and drug use is prevalent in adolescence, it is not easy to avoid exposure. Therefore, the youth remain in a cycle of substance abuse and increased mental health concerns, especially for those who do not have the ability to obtain professional help once they leave residential treatment for financial reasons or otherwise.

Implications for the Behavioural Psychology Field

In completing this thesis, the importance of individualized treatment and its critical role in client engagement in treatment became apparent. Implementing a flexible length of stay policy allows those clients who are unable to continue treatment, due to a variety of reasons, the opportunity to work on their substance abuse goals even for a short period. For example, a client may present with an eating disorder and therefore require hospitalization. However, before they required hospitalization they were able to work towards their substance abuse goals even for a short period in residential treatment. Furthermore, exploring other factors that could be playing a role in the clients’ desires to leave treatment prematurely could allow staff to retain clients longer at the residential facility. Ensuring that a treatment program addresses each individual client’s needs is crucial to maximize treatment effects. In the behavioural psychology field, it is important to address the needs of each individual client and consider those needs when developing a treatment program. In addition, it is also essential to ensure that all staff consistently follow best practices and that treatment programs are being developed based on current literature. Following these guidelines, it may increase the likelihood of treatment success.

Recommendations for Future Research

In the future, it would be beneficial to conduct a longer-term study to determine how the flexible length of stay policy has affected clients and their recovery from substance use by completing a one or two-year follow up with six-month intervals. Additionally, the longer term could control for other factors that may have an impact on the average length of stay. In continuing to examine the effects of the flexible length of stay policy further, it could present an opportunity for the agency to modify their existing approach and provide the best possible treatment to their clients in the future.

In regards to the flexible length of stay policy, it may be beneficial to create a list of specific criteria that can be completed as a pre-requisite to qualify for graduation/completion. By creating explicit criteria, it would allow all agency staff to uphold consistent practices. Furthermore, the criteria could ensure that the implementation of the flexible length of stay policy was reliable and consistent at both residential facilities. Perhaps future students from the behavioural psychology field could assist in creating and applying such criteria within the agency.
References


Appendix A: Agency Consent Form

St. Lawrence College

Consent Form

**Addressed to Clinical Director:** Troy Thompson, [Redacted]

**Project Title:**
Program Evaluation of a Flexible length of stay Policy at a Residential Substance Abuse Treatment Facility for Youth

**Student:**
Chelsea Graham

**College Supervisor:**
Lana Di Fazio

**Invitation**
I am a student in my 4th year of the Behavioural Psychology degree at St. Lawrence College, and am currently on placement at [Redacted]. As a part of this placement, I am completing a special project called an applied thesis and am asking for your assistance to complete this project. The information in this form is intended to help you understand my project so that you can decide whether or not you want to participate. Please read the information below carefully and ask all the questions you might have before deciding whether or not to participate.

**What is the purpose of the study?**
This study will evaluate the flexible length of stay policy to determine what effect it has had on clients attending treatment. In order to do this, archival data will be collected from client discharge reports from the past eight months since this policy was implemented. This study will also collect data from staff surveys to determine staff opinions on how this policy has affected clients.

**What will you need to do if you take part?**
This study does not apply to any individual clients. However, it will be crucial to encourage staff to complete the survey in order to get the best possible outcome. On another note, the agency must allow the student access to discharge reports to ensure effective and accurate data collection.
What are the potential benefits to me for taking part?
There will be no direct benefit to past clients or to agency staff completing the survey. However, taking part in this will provide the agency with a preliminary review of the flexible length of stay policy.

What are the possible disadvantages and risks of taking part?
Due to the nature of this policy review, there will be no direct disadvantages to past clients or agency staff who choose to participate.

What happens if something goes wrong?
There are no risks for taking part in this policy evaluation.

Will my taking part in this project be kept private?
No identifying information of past clients will be collected during the review of the archival data. Client’s name, age, sex, address, will not be collected at any point throughout the policy evaluation. Data will be collected on length of stay, type of discharge (self or administration), and reason for leaving. Staff surveys will be completed anonymously. Therefore, no staff names will be included in any written or oral presentation of this policy evaluation. The data will be presented in a thesis report and poster presentation, however no identifying information will be included.

Do you have to take part?
It is up to you to decide whether or not you would like to take part. If you do decide to take part, you will be asked to sign this consent form. If you do decide to take part, you are still free to withdraw at any time, without giving any reason, and without incurring and penalty.

Contact for further information
The project has been approved and will be supervised by Lana Di Fazio, my supervisor from St. Lawrence College. I appreciate you cooperation. If you have any additional questions or concerns, feel free to contact me via email at cgraham28@student.sl.on.ca; or you may contact my College Supervisor by phone at 613-536-6119 or via email at lana.difazio@csc-scc.gc.ca.

Consent
If you agree to participate in the project, please complete the following form and return it to me as soon as possible. A copy of this signed document will be given to you for your own records.
CONSENT

By signing this form, I agree that:

- The research project has been explained to me.
- All of my questions were answered.
- Possible harm and discomforts and possible benefits (if any) of this project have been explained to me.
- I understand that I have the right not to participate and the right to stop at any time.
- I am free now, and in the future, to ask any questions about the research project.
- I have been told that personal information will be kept confidential.
- I understand the results of this project may be published or presented in a professional forum.
- I understand that no information that would identify me will be released or printed without asking me first.
- I understand that I will receive a signed copy of this consent form.

I hereby provide consent for Dave Smith Youth Treatment Centre to participate:

Clinical Director, DSYTC (please print): ________________________________

Signature: ___________________________ Date: _______________

SLC Student Signature: __________________________ Date: _______________

Printed Name: __________________________

Witness: _______________________________ Date: _______________

Printed Name: __________________________
Appendix B: Staff Survey

Staff Survey – Flexible length of stay

The following survey is to collect some information regarding staff opinions about the flexible length of stay policy and its impact on youth. The flexible length of stay was piloted beginning in February 2015 with a variety of goals (individually tailored length of stay, sense of accomplishment without a formal 90-day graduation, no ‘magic number’ in terms of treatment length, increased client ownership of treatment experience).

1. Please select your position at the agency:
   AC Carp   AC – CP   AT Carp   AT – CP   ACC   FT

2. Did you work at the agency prior to the flexible length of stay policy being implemented?
   YES       NO

3. Do you think the flexible length of stay has had a negative effect on the youth attending this facility?
   Strongly Disagree   Agree   Neutral   Disagree   Strongly Disagree

4. Do you think the flexible length of stay has had a positive effect on the youth attending this facility?
   Strongly Disagree   Agree   Neutral   Disagree   Strongly Disagree

5. In your opinion, has the flexible length of stay increased client motivation to participate in treatment?
   Strongly Disagree   Agree   Neutral   Disagree   Strongly Disagree

6. Do you think that the flexible length of stay policy has decreased the number of youth being discharged by administration?
   Strongly Disagree   Agree   Neutral   Disagree   Strongly Disagree

7. In your experience, has the number of youth attending treatment for 90 days decreased?
   Strongly Disagree   Agree   Neutral   Disagree   Strongly Disagree

8. Based on your observation, do you think that the flexible length of stay policy has resulted in reduced aggression on-site?
   Strongly Disagree   Agree   Neutral   Disagree   Strongly Disagree
9. Do you think that the flexible length of stay has decreased the number of youth choosing to self-discharge from the program?

   Strongly Disagree    Agree    Neutral    Disagree    Strongly Disagree

10. Do you think the flexible length of stay has led to a positive shorter length of stay for youth?

    Strongly Disagree    Agree    Neutral    Disagree    Strongly Disagree
Appendix C: Raw Data for Staff Survey Results

Frequency of Responses for Survey Questions Three to Five

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