Healthy Lifestyles Group for Adults with a Dual Diagnosis

by

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DEDICATION

This study is dedicated to those living with a dual diagnosis who have not been given the opportunity to learn ways to have a healthy and safe lifestyle. The study is also dedicated to those professionals who are in a position to deliver information to dually diagnosed clients regarding healthy lifestyles.
ABSTRACT

The topic of dual diagnosis is often discussed in the literature, but studies involving effective interventions are scarce (Romana, 2003). Those with a dual diagnosis are at an increased risk of obesity (Citrome, et al., 2005), forming unhealthy relationships (Hostyn & Maes, 2009), and of being abused (DiGiulio, 2003). This study assessed the effectiveness of The Healthy Lifestyles Group to increase the perceived knowledge rating of eight participants with a dual diagnosis, living in a supported independent living facility. The age of participants ranged from 22 to 58 years and included six females and two males. Six sessions were delivered once per week and lasted for 60 minutes. The Healthy Lifestyles Group consisted of five educational sessions and one celebration session. Each educational session focused on one specific topic. Topics covered were healthy eating, physical activity, emotional regulation, healthy relationships, and crisis planning and prescription drug safety. The participants’ perceived knowledge ratings were assessed before The Healthy Lifestyles Group began, at the midpoint, and when the group was completed. A visual analysis was completed of the group means, medians, and standard deviations. From pre-test to post-test, there was an increase in perceived knowledge ratings for all topics. These results suggest that The Healthy Lifestyles Group could be an effective method to increase the amount of knowledge regarding healthy lifestyles in those with a dual diagnosis. Recommendations for future research could include measuring risk reduction relating to healthy lifestyle information, as well as, collecting information regarding future relevant topics.
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Chapter I: Introduction

Overview

A person who has a developmental disability is four to five times more likely to have a mental illness than in someone in the general population (Borgiorno, 1996). Dual diagnosis refers to a person who has both a diagnosis of a developmental disability and a diagnosis of a mental illness.

People who have a dual diagnosis are at a higher risk of being overweight or obese than someone in the general public (Citrome, Blonde, & Damatarca, 2005). Some reasons for this propensity are the use of psychotropic medications (Holt & Peveler, 2009), a lack of education related to their health (Ronis, 2008), and an unwillingness to seek assistance from professionals. Those with a dual diagnosis are also less resourceful when knowing who and how to ask for help. Being overweight or obese increases the risk for hypertension, diabetes, heart disease, and other serious health concerns.

There are many factors related to having a developmental disability or a mental illness which may hinder the development of important relationships, for instance challenges in appropriately expressing emotions, being aware of and communicating one’s own needs and thoughts, being able to understand and navigate others’ emotions (Hostyn & Maes, 2009). Social stigma and lack of social opportunities also increase the challenge for a dually diagnosed individual to form meaningful and healthy relationships (Di Giulio, 2003). Unhealthy relationships place a person with a dual diagnosis at a higher risk than someone in the general population for all forms of abuse. Lack of knowledge regarding abuse, social stigma, and a necessity to be dependence on others place people with a dual diagnosis at a disadvantage when it comes to preventing, recognizing, and stopping abuse.

Due to the increased risks of obesity and health related concerns (Citrome, et al. 2005), the difficulty that those with a dual diagnosis face in forming healthy friendships (Hostyn & Maes, 2009), and the increased risk of being abused (DiGiulio, 2003) it is imperative that education is provided that will assist those living with a dual diagnosis to live safe, independent, and healthy lifestyles.

Hypothesis

If increased risks of obesity and health related concerns, difficulties forming healthy relationships, and increased risk of being abused are due to a lack of knowledge regarding healthy lifestyles, then participating in The Healthy Lifestyles Group will increase knowledge and decrease associated risks. Group and individual counselling are the two most common ways to provide psychoeducation and have been shown to work effectively with dually diagnosed populations (Mardoyan & Weis, 1981). For the purpose of this study, perceived knowledge ratings regarding specific, but relevant topics were recorded for all participants of the study. This was done to demonstrate the improvement of perceived knowledge ratings after psychoeducation was provided in a group setting.

Rationale

Although the topic of dual diagnosis is discussed often in the literature, there are few studies involving interventions with this population (Romana, 2003). Therefore, this study is intended to offer an effective method of providing information to adults with a dual diagnosis. Receiving education regarding healthy lifestyles can make an individual more aware of
unhealthy and dangerous choices being made in the individual’s life. Having healthy lifestyle knowledge can also encourage an individual to make positive changes in their life. The overall goal of using group therapy to provide psychoeducation to adults with a dual diagnosis is to increase perceived knowledge of topics important to living safe and healthy lives.

Summary

The following thesis consists of a literature review, a method section, a results section, and a discussion section. Chapter II is the literature review and contains an overview that explains dual diagnosis, some difficulties that are faced by those living with a dual diagnosis, and associated risk factors for living an unhealthy lifestyle. The literature review also summarizes interventions related to healthy lifestyle groups and effective interventions for those with a dual diagnosis. Chapter III is the method section and gives a detailed description of the participants of the study, the setting, the materials, and procedures that were used to implement the study. Chapter IV is the results section and provides visual and descriptive statistical analysis of the results obtained from the study. Lastly, Chapter V is the discussion and will provide an overview of the strengths and limitations of the study and implications of the study for future research.
Chapter II: Literature Review

Background Information of Dual Diagnosis

The Center for Disease Control and Prevention (2011) reported that from 1997-2008 13.78% of the United States’ population had a diagnosis of a developmental disability. A developmental disability is defined as having limitations in intellectual or cognitive functioning and in two or more of the following areas of adaptive functioning: communication, self care, social skills, self-direction, health and safety, or academics and these limitations would need to have been present before the age of 18. (Borgiorno, 1996). It has been found that there is a high risk of people with a developmental disability to develop a co-occurring serious mental illness (White, Chant, Edwards, Townsend, & Wahgorn, 2005). The government of Canada defines mental illness as an alteration in an individual’s thinking, mood, or behaviours that causes significant impairment in the individual’s life (Health Canada, 2006). These alterations can be explained by genetic and biochemical factors but also by looking at early experiences of the individual, psychosocial stressors, and cognitive or behavioural problems that the person may be experiencing. An example of a psychosocial stressor would be an inability to live up to a parent or guardian’s educational expectations. It may not be possible for the individual with a developmental disability to ever meet these expectations but the continued pressure can cause extreme anxiety and/or depression.

When an individual is diagnosed with both a developmental disability and a serious mental illness it is considered a dual diagnosis (Borgiorno, 1996). A diagnosis of a mental illness can easily be missed in an individual with a developmental disability (White et al., 2005). Impaired communication resulting from a developmental delay hinders an individual’s ability to accurately describe other symptoms that they may be having. There is also a risk that because symptoms of the developmental disability are most prominent they can overshadow underlying symptoms of a serious mental illness. It is very difficult for a professional to know which behaviours are caused by a developmental disability and which are caused by a serious mental illness.

Difficulties Living with Dual Diagnosis

Borgiorno (1996) described some of the difficulties that an individual may face once a dual diagnosis is received. Individuals with a dual diagnosis are limited not only by their intellectual and adaptive difficulties but also by the symptoms related to their mental illness. A person with a developmental disability may not have the coping and life skills needed to effectively manage their mental health symptoms that are beneficial to managing the symptoms that their mental illness can present. Although a dual diagnosis is categorized under the mental health field, finding appropriate treatments and living arrangements for individuals with a dual diagnosis can be difficult within the mental health community can present many problems. An individual with a developmental disability may not benefit from living facilities and treatments designed for people with on a mental illness, as the required intensity of supports may not be present living facilities and treatments designed for those with only a mental illness. In the same sense, due to an individual’s symptoms and psychotropic medications, a dually diagnosed individual may not be welcome in a facility or treatment that is designed for those with only a developmental disability. These complications make it difficult for professionals to treat those with a dual diagnosis, but also make it hard for an individual to feel included and able to relate to other clients in programs.
In addition to difficulties finding treatment programs and living arrangements, individuals who have a dual diagnosis face many other challenges in their daily lives. Weight gain, emotional dysregulation, poor relationships, and uncertainty about the future play a large role in the lives of dually diagnosed individuals.

**Risk of Obesity and Related Medical Concerns**

Many symptoms associated with mental illness are treated with psychotropic medications. The use of psychotropic medications is considered the most prominent predictor of weight gain in people with mental illness (Holt & Peveler, 2009). These medications have many side effects which include increased lethargy. With increased lethargy, the risk of obesity and medical complications, such as type 2 diabetes and heart disease are increased (Citrome, Blonde, & Damatarca, 2005). Psychotropic medications have also been shown to change the metabolic rate of a patient’s body and increase their appetite (Holt & Peveler). Those given a dual diagnosis are more likely to be overweight or obese than the general public (Citrome et al.)

Humphries, Traci, and Seekins (2004) listed obesity, hypertension, diabetes, and heart disease as medical conditions that those with a developmental disability may face. The authors discussed the importance of preventing and managing any condition that may increase barriers for those with a developmental disability to participate actively in the community. Ronis (2008) provided similar concerns in regards to people a with mental illness. The author reported that those with a serious mental illness suffer increased mortality rates caused by obesity, hypertension, diabetes, hepatitis, heart disease, and other medical illnesses compared to individuals in the general population. Ronis also explained that those with mental illness are less likely to seek help from health care services than the general population. The authors explained that those with mental illnesses are afraid that they will not be believed by medical professionals. Also, when those with mental illness do seek assistance, health care providers are more likely to attribute illness to the symptoms of a patient’s mental illness as opposed to a medical problem.

**Difficulties Forming Meaningful Relationships**

The symptoms of a person’s dual diagnosis can also affect the quality of relationships that are in their life (Hostyn & Maes, 2009). The needs, thoughts, and emotions of those with a dual diagnosis may be difficult for the general population to accept and understand. Those with a dual diagnosis can also have characteristics such as impulsivity, lack of judgement, previous sexual abuse, and low self-esteem which can prevent others from getting close to them (Brown et al., 2010). The social stigma related to these characteristics and to a disability can play a major role in the self-confidence of a person with a dual diagnosis (Di Giulio, 2003). Those with disabilities are often seen as someone who needs to be taken care of and protected. These stereotypes can cause those with disabilities to have low self-esteem when it comes to forming new relationships. To add to this, those with dual diagnoses usually have a lack of social opportunities due to the fact that they do not often go to school or have employment. Work and school are common places for people to create and maintain healthy relationships. Lack of employment and funding also leaves those with developmental disabilities and mental illness with little money to afford social activities. Due to the fact that those with dual diagnoses have few natural opportunities and little money to find opportunities to create new friendships, it is also very hard for them to form romantic relationships.
Increased Risk of Abuse

Persons with a dual diagnosis are at a much higher risk for abuse than those in the general population (Di Giulio, 2003). Of those with a disability, 80% to 90% are victims of some form of abuse during their lives. There are many factors that put someone with a dual diagnosis at risk for abuse, such as lack of accurate information regarding abuse. Although society is becoming more liberal, such people maintain the belief that those living with a disability should not be sexually active. When parents of children with disabilities believe this, they tend to avoid teaching their children about sex and shelter them from situations where they might learn about it. This places dually diagnosed individuals at a disadvantage when managing sexual advances from others. Besides not knowing the parameters of abuse, those with dual diagnosis may not have the knowledge or confidence to talk to partners about having forms of safer sex. Those with dual diagnoses are also very dependent on others and can feel powerless to stop people from taking advantage of them. As well, most often, those with a dual diagnosis have been socialized to go along with what others want them to do, including care providers.

With the increased risk of obesity and other health concerns, lack of healthy friendships, and an increased risk of abuse, it is imperative to teach those with dual diagnoses the skills they need to live a safe and healthy lifestyle.

Interventions

**Group vs. Individual Counselling.** Group and individual counselling are the two most common ways to provide psychoeducation (Mardoyan & Weis, 1981). The authors discussed the benefits of using group counselling with adults rather than individual counselling. They highlighted the shared responsibility of group members to contribute and help themselves and others grow. The authors also discussed how group counselling encourages social interactions between members and the ability to share similar experiences. Counsellors may not have strategies for coping with all situations. The group provides the opportunity to problem solve conflicts by learning how others have coped in the past. Providing the opportunity for group members to help each other in the group can help to develop self-esteem and self-worth.

Mardoyan and Weis (1981) discussed several disadvantages to individual counselling. The first disadvantage noted was the high risk of counter-transference during individual counselling sessions. Counsellors can see similar qualities between the client and someone they love such as a child, parent, or sibling. This may lead to the counsellor treating the client differently, becoming over protective of them, and being unable to confront the client. The authors also discussed the greater likelihood of the counsellor’s own unresolved feelings and biases becoming apparent during individual counselling sessions. The counsellor may have preconceived notions regarding what a person with a disability is capable of or how they should act. The counsellor may also have fears of their own regarding different situations. Both of these greatly impact the way the client is treated and how they feel about their experiences. During individual counselling, both counter transference and personal biases are more likely to become a problem. The counsellor is focusing on one client instead of many and the client is hearing only one set of ideas or experiences.

Vlasto (2010) completed interviews with nine bereavement therapists to gain insight into the advantages and disadvantages of group and individual counselling. Regarding group counselling, the therapists discussed benefits including social contact, practice of social skills, and receiving support and guidance from many individuals. The therapists also highlighted the importance of seeing others in the group change and learn, as well as, having problems
normalized when others talk about similar experiences. It was said that sharing could be considered contagious and that discussions precipitated discussion and problem resolution. In contrast, the therapist reported a disadvantage to group counselling to be that occasionally there was competition in the group. An example of this would be members trying to out-do another member’s stories to show that they were worse off. Another reported disadvantage was that group members reported feeling that they took too much of the group’s time or did not feel comfortable sharing some personal issues in front of a group. When comparing individual and group counselling, all of the therapists agreed that group counselling was best suited for social topics, to provide a large support network, promote discussion, and educate members.

Although group counselling was considered most beneficial, therapists also agreed that an advantage to individual counselling would be having a private area where a client could delve deep into experiences and share much more detailed and private information that they may not have felt comfortable revealing in front of other people (Vlasto, 2010). Controversial opinions or feelings could be more easily given in private as well. For example, a client could express a sense of relief that a parent had passed away. The main disadvantage reported by the therapists regarding individual counselling was the feeling of power imbalance. The therapist was seen as being in charge and having more control and power than the client. This could make the client uncomfortable to disclose information. Individual sessions could also lead to the therapist discussing personal experiences, allowing the client to escape discussing what had brought the individual to counselling.

**Lifestyle Groups.** Sigman and Hassan (2006) developed an unstructured group intended for adults with schizophrenia. The goal of the group was to provide a consistent time and place for those participating in the group to meet and talk. Sessions were open ended and there was no agenda for the participants’ discussion period. If no one began speaking, group leaders would begin conversations about neutral topics such as the weather. Although the group was not goal or outcome oriented, the leaders recorded when a participant engaged in conversation, made a supportive comment to another member, used humour, or gave insight into another person’s experience. Results showed that, on average, as the participants spent more time in the group they began to participate more in the meetings, make more humorous comments, have more insight, and supported the other members. During feedback sessions participants verbally reported feeling less anxious, more confident, and having an overall higher quality of life.

Ash et al. (2006), completed a randomised controlled study to compare the effectiveness of a lifestyle group, individual counselling, and a control group to help manage weight. One hundred and seventy six adults, above the age of 18 years, who were categorized as obese participated in the study. All participants used a nutrition resources booklet that was based on cognitive behavioural therapy principles. The lifestyles group consisted of 10 to 12 participants who met for 1.5 hours every week for a total of eight weeks. The group was based on knowledge, skill development, and relapse prevention. While the information was provided to all the members of the lifestyles group, members were required to implement the strategies on their own. The individual counselling group was provided weekly contact with a registered dietician for eight weeks. The dietician completed an initial nutrition assessment, created a diet prescription, and developed an exercise prescription with the participants. The control group was provided with only the nutrition resource book. All groups were assessed at baseline and 3, 6, and 12 month follow up to assess weight, body mass index, body fat percentage, and waist circumference. There were no significant differences between the results of the lifestyles and the
individual counselling groups but during follow up it was found that those who participated in the lifestyles group had better results maintaining their weight loss.

An empowerment group was run with dually diagnosed adolescents (Lee & Gaucher, 2000). Ten participants aged 12 to 18 years, with a mild or moderate developmental disability and a diagnosis of a behavioural or psychiatric disorder participated in the empowerment group. The group met twice a week for a total of seven hours with the goal of empowering the adolescents to improve their situation. This was done by teaching the members social skills, social interaction, and independent living skills such as phone calls, bus routes, and budgeting. The group members could remain in the group for up to two years or until they reached the age of 18 years. They were assessed before beginning the group and after its completion. Assessments included self report, parental report, staff report, and teacher report of social skills. The assessments also included participants’ goal attainment and an overall satisfaction rating of the group. There were increases in self reported, parental, group staff, and teacher ratings of social skills. Of the parents, 45.5% reported that their child had met his/her goal, while 54.5% reported partial goal completion. Finally, 95.5% of parents reported that the program was helpful to their child.

Group therapy can also be an effective method for teaching the skills required to live a healthy lifestyle. Barnes et al., (2008), developed a group to encourage adults aged 25 to 59 years, who lived in a subsidized apartment complex, to become active members of the community. Nineteen participants took part in eight weekly sessions that ran for 1.5 hours. Each session covered a specific topic related to a healthy lifestyle and consisted of a structured education segment, an interactive activity, and a discussion. The topics were occupations, stress management, relationships, time management, exercise, body mechanisms, transportation and low cost activities, nutrition, spirituality, and safety. The measure that the authors used, to measure how active in the community the participants were, was found to be a poor tool due to the complexity of the questions and the lack of understanding of the group members. Although no significant results were found when the assessment measure was used, during a feedback session the group participants verbally reported that the group had a significant impact on their lives. Participants reported that they had an increase in the quality of their lives and life satisfaction, that they had developed and been able to apply new skills, and that if the group were to run again they would participate a second time.

Similarly, Perlman et al. (2010) offered a group therapy program for veterans diagnosed with a psychiatric disorder and other co occurring medical ailments. The group was to encourage the participants to lead healthy lifestyles and to gain better coping strategies. The inclusion criteria were only that the participant was a veteran and had a psychiatric disorder, which resulted in 83 participants. There were 15 sessions, once per week, for a duration of 75 minutes. Although participants could join at anytime throughout the program participation in all 15 sessions was ensured so that they learned all the material. Due to the different lengths of time that the participants had been in the program, there was a mentoring aspect. Those participants who had been in the study the longest worked to help new group members feel comfortable and participate.

Educational modules in Perlman et al. (2010) consisted of information regarding positive self care, physical activity, stress management, and increased social engagement. Participants were asked to monitor various aspects of their lives outside of the group that included what exercises they participated in, how much exercise was completed, sleep schedules, participation in activities, and other social interactions that they may have had. Self-monitoring was completed to help visualise the material presented in the group and to help monitor individual
goal completion. Each session began with stretches and relaxation techniques, followed by individual updates on participants’ success, review of the previous week’s skills, and the teaching of a new skill. Results were measured using a self-report health survey that assessed physical, emotional, and mental health. The survey was administered at baseline, midpoint, and after the group was completed. Results showed a significant improvement on all categories of the assessment.

**Rationale for Using Healthy Lifestyles Groups with Dual Diagnosis Clients**

Although the topic of dual diagnosis is discussed often in the literature, there are few studies involving interventions with this population (Romana, 2003). More research needs to be completed regarding the most effective treatment methods to educate those with dual diagnoses. Due to the increased risks of obesity and health related concerns (Citrome et al., 2005), the difficulty those with dual diagnoses face in forming healthy friendships (Hostyn & Maes, 2009), and the increased risk of being abused (Di Giulio, 2003) it is imperative that education is provided that will assist those with a dual diagnosis to live safe, independent, and healthy lifestyles. Participation in The Healthy Lifestyles Group will increase knowledge and decrease the associated risks those with a dual diagnosis face.
Chapter III: Methodology

Consent
Consent to participate in the Healthy Lifestyles Group was obtained from eight clients of a program designed to support independent living. A sample of the consent form can be found in Appendix A and a copy of the verification form can be found in Appendix B. The student counsellor reviewed the consent form with each participant individually to ensure understanding and to answer any questions the participant may have had. The reasoning behind the student completing the study, the purpose of the study, expectations of the participants, and the risks and benefits of participating were explained in detail. It was also explained that the participant was not required to participate and that they could drop out at anytime without interruption to any services they were already receiving. This study and the consent form were approved by the St. Lawrence Research Ethics Board, the placement supervisor, and the agency.

Inclusion Criteria
To be considered for the Healthy Lifestyles Group, participants had to be residing in the apartment building and participating in the Supported Independent Living Program. The Supported Independent Living Program was designed for those with a dual diagnosis, which was defined as a diagnosis of both a developmental disability and a mental illness. To participate in the Supported Independent Living Program, participants were also required to need a moderate level of support. This was defined as needing prompting and modeling to complete daily chores, assistance cooking with the stove top and oven, grocery shopping, budgeting, and getting to programs and appointments.

Participants
All residents of the Supported Independent Living Program were approached by the student counsellor to participate in The Healthy Lifestyles Group. One resident chose not to participate. Participants consisted of two males and six females ranging in age from 22 to 58 years. All participants had a mild to moderate developmental disability and at least one diagnoses of a mental illness. Mental illness diagnoses differed between participants but included anxiety disorders, depression, schizophrenia, and autism. One participant also had an acquired brain injury.

Design
An AB design was used when implementing The Healthy Lifestyles Group. The independent variable was psychoeducation which was provided through The Healthy Lifestyles Group. This was evaluated through the dependent variable of self-reported perceived knowledge ratings. Increases in perceived knowledge ratings were operationally defined as a higher score on the 5 point Likert scale used to assess knowledge of the topics. Each of the topics was measured independently.

A visual analysis was used to show the results of the questionnaire. Data was also analyzed through descriptive statistics and examined the means, medians, modes, and standard deviations of the results.

Setting/Apparatus
Five educational sessions and one celebratory session were delivered in the common area on first floor of the apartment building in which the Supported Independent Living Program was
located. This room was easily accessible to all participants and was reserved once per week. There was a large table surrounded by chairs in the common area that had room for all participants. Each session lasted approximately one hour, with the 15 minutes after the group dedicated to enjoying a healthy snack. Sessions were presented by the student counsellor under the observation of the placement supervisor. The student counsellor provided paper, pencils, questionnaires, hand out packets, and any visual props such as bristol board presentations.

Handout packets were created by the student counsellor and were provided to the participants to refer to. The packets were comprised of a summary of the information discussed in each session and copies of any handouts used during the presentation. The student counsellor also provided healthy snacks and drinks at the end of each session.

Measures

The Healthy Lifestyles Group Questionnaire (HLGQ; Appendix C) was developed by the student counsellor for the purpose of measuring the participants’ perceived level of knowledge regarding each target topic. The questionnaire consisted of five questions, one for each topic discussed. Each question identified the topic being assessed and gave several examples to ensure complete understanding. The questionnaire used a five point Likert scale. A score of 1 meant that the participant thought they knew little to nothing about the topic and a score of 5 meant that the participant thought they were quite knowledgeable about the topic. The HLGQ was written at an intellectual level that participants were able to comprehend easily and short enough to maintain their attention. The student counsellor administered the HLGQ before the group began, at the midpoint, and after the final group.

Procedure

Quality Assurance Measures were developed by the Ontario provincial government to support the Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act 2008 (Ministry of Community and Social Services, 2011). This Act hopes to improve services and supports for adults with developmental disabilities. As part of the Quality Assurance Measures, related directly to residential services and supports, education must be provided to all clients once per year. The topics to be covered are prescription medication, diet and nutrition, personal hygiene, sexual health, behaviours that may pose a threat to a person’s health and safety, self-esteem and well-being, communication skills, developing relationships, and food and nutrition. Topics for the Healthy Lifestyles group were derived from the Quality Assurance Measures.

The consent form was reviewed individually with all clients of the Supported Independent Living Program to ensure understanding. Each section of the form was explained and any questions that the client had were answered. The group commenced after consent had been obtained from all group participants.

The Healthy Lifestyles Group was designed to educate individuals in the group about topics relating to healthy lifestyles. The Healthy Lifestyles Group consisted of five educational sessions and one celebration session. A copy of The Healthy Lifestyles manual can be found in Appendix D. The weekly sessions were one hour in length and took place in the common area located within the participants’ apartment building. Each educational session discussed one topic related to a healthy lifestyle. The topics were healthy eating, physical exercise, emotional regulation, healthy relationships, and crisis planning. On the sixth week, participants received a certificate for participating and participated in a pizza party.
Each session consisted of the student counsellor presenting structured information, followed by a discussion regarding how the participants felt about the information and personal experiences they may have had. During the discussion the student counsellor answered any questions regarding the material. Interactive activities were also completed throughout the structured information. Activities were used to help participants gain more understanding of the topic and practice applying new skills. Handouts summarizing the sessions information and activities were given to participants to help them follow along with the presentation and to refer to on their own time. After the session was completed the student counsellor provided healthy snacks and beverages to all the participants who wished to stay.

Confidentiality

All documents, including assessments, data collection sheets, and notes, were kept in a locked cabinet in the agency’s office. All names, including the agency’s name, were omitted from any reports to ensure that no identities were revealed. Information collected during this study was stored in the participants’ files at the agency for a minimum of seven years. The computer used to write the report and analyze data was password protected and only the student counsellor had access to it.
Chapter IV: Results

Group Results
The average rating, median rating, and standard deviations for the group’s rating of perceived knowledge on each question of the HLGQ are shown in Table 1 (Appendix E). The average ratings are graphed in Figure 1. Results show an increasing trend in perceived knowledge for each question. From the pre-test to the post-test there was an increase of 27.1% on Question 1 regarding healthy eating, 31.9% on Question 2 regarding physical exercise, 87.8% on Question 3 regarding emotional regulation, 57.6% on Question 4 regarding healthy relationships, and 61.6% on Question 5 regarding crisis planning.

![Figure 1. Mean group results of the HLGQ](image)

Individual Results
Participant 1. Participant 1 showed increases in perceived knowledge regarding all questions of the HLGQ as shown in Table F2 (Appendix F) and graphed in Figure G2 (Appendix G). Perceived knowledge ratings increased by 1 point on questions 2 and 5. Questions 1, 3, and 4 showed an increase of 2 points.

Participant 2. Participant 2 showed increases in perceived knowledge regarding all questions of the HLGQ as shown in Table F3 (Appendix F) and graphed in Figure G3 (Appendix G). Perceived knowledge ratings increased by 1 point on questions 1, 2, 3, and 5. Question 4 showed an increase of 2 points.

Participant 3. Participant 3 showed stable perceived knowledge ratings for question 1 and increases of 1 point on question 2 and 4. Question 3 showed an increase of 1 point and
Participant 4. Participant 4 showed stable perceived knowledge ratings for question 1 and question 2 of the HLGQ. Participant 4 showed an increase of 3 points on question 3, and an increase of 1 point for questions 4 and 5. This is shown in Table F4 (Appendix F) and graphed in Figure G4 (Appendix G).

Participant 5. Participant 5 showed stable perceived knowledge ratings for questions 1, 2, 4, and 5. Participant 5 showed an increased rating of 2 points for question 3 of the HLGQ as shown in Table F5 (Appendix F) and graphed in Figure G5 (Appendix G).

Participant 6. Participant 6 showed increases in perceived knowledge regarding all questions of the HLGQ as shown in Table F6 (Appendix F) and graphed in Figure G6 (Appendix G). Participant 6 also showed an increase of 2 points on questions 2 and 5.

Participant 7. Participant 7 showed increases in perceived knowledge regarding all questions of the HLGQ as shown in Table F7 (Appendix F) and graphed in Figure G7 (Appendix G). Perceived knowledge ratings increased by at 2 points for questions 1, 2, 3, and 4. Participant 7 also showed an increase of 3 points on Question 5.

Participant 8. Participant 8 showed increases in perceived knowledge regarding all questions of the HLGQ as shown in Table F8 (Appendix F) and graphed in Figure G8 (Appendix G). Perceived knowledge ratings increased by 1 point on questions 1 and 2. Participant 8 also showed increases of 2 points on questions 3, 4, and 5.
Chapter V: Discussion

By using an AB design, The Healthy Lifestyles Group was implemented to increase the perceived knowledge ratings of 8 adults with dual diagnoses. Participants were assessed before the group began, at the midpoint, and after the group was completed. After visually analyzing the pre and post raw scores the of the individual participants, as well as, the group means, medians, and standard deviations for each of the 5 questions, the scores indicated an increase in perceived knowledge ratings for all participants after the completion of The Healthy Lifestyles Group. These results are similar to those of Perlman et al. (2010) who developed a group therapy program designed to encourage veterans with a psychiatric disorder to live healthy lifestyles by providing them with psychoeducation. The authors reported significant improvement on all categories of the assessment from pre- to post-assessment. Perlman et al.’s data consisted of responses to a self report health questionnaire that assessed emotional and mental health.

When the group facilitator asked the participants questions regarding all of the topics discussed in The Healthy Lifestyles Group, participants were able to provide the appropriate response. This suggests that although the participants had difficulty completing the questionnaire individually, all of the participants could recall some of the information taught in the group.

Future Benefits to the Participants

By participating in The Healthy Lifestyles Group, participants have obtained the skills to recognize aspects of their lives that are unhealthy and implement strategies for positive change. Knowledge regarding who to go to for help modifying their lives was also gained. Not only can participants apply these skills to their own lives but to the lives of friends and family members as well, which will in turn strengthen these relationships.

Future Benefits to the Agency

By implementing The Healthy Lifestyles Group the agency is providing their clients with the skills needed to live a healthy, independent lifestyle. Due to the fact that the agency’s clients have developed these skills, there may be less need for staff intervention with everyday problems. The agency will also have a detailed outline of an effective method of adhering to the Quality Assurance Measures client education guidelines.

Generalization to Other Settings

After The Healthy Lifestyles Group was completed, staff members in the supported independent living facility reported noticing significant positive differences in the behaviour of participants. The staff members attributed these differences to the success of The Healthy Lifestyles Group. One example of this positive change was when a participant approached a staff member about joining a weight loss program and started to walk every day. Similarly, another participant decided to put more money towards their grocery budget to allow for the purchase of healthier foods.

Another example of a behavioural change as noted by a staff member was the change in a participant’s confrontation style. Previous to The Healthy Lifestyles Group the participant tended to become agitated and confrontational. Although the participant continued to raise her voice at the staff members she conveyed her concerns through the use of “I” statements.
Generalization to Other Populations

Due to the numerous combinations of diagnoses that can contribute to a dual diagnosis it is difficult to know if The Healthy Lifestyles Group could be generalized to other populations without some modifications. The information discussed within the group is applicable to all people who have a dual diagnosis but the way in which it is presented to clients may need to be changed to ensure optimal understanding. Modifications would need to be based on the level of developmental delay and previous education.

Program Changes

The Quality Assurance Measures were designed to support the Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act (2008) issued by the Ontario provincial government. As part of the measures to assess residential service providers, clients are to be educated yearly on a variety of topics. After reviewing the content of The Healthy Lifestyles Group, it was found that the group provided education on all topics required by the Quality Assurance Measures, with the exception of prescription medication safety. To ensure that The Healthy Lifestyles Group could be offered in the future, and as a way to meet the Quality Assurance Measures, prescription medication safety was discussed during Week Five, which concentrated on crisis planning.

Due to the sensitive and serious nature of the information discussed in the Healthy Relationships week, the material was presented to the clients on Week 4 instead of the originally planned Week 5. The switch provided more group time to allow support to participants who may have distressing reactions to the information. This change also allowed the crisis planning information to be presented on Week 5, which provided extra support and ways to cope with any negative feelings that remained from the information provided regarding healthy relationships.

Strengths

Participating in group therapy gave the participants an opportunity to hear other participants’ experiences and coping techniques. It also gave them a chance to form relationships with people in a similar situation and with similar pasts. Through self-report it was known this collectively increased all participants’ support systems and increased their success rate in The Healthy Lifestyles Group and other programs they were involved in.

Limitations

The HLGQ assessment was not standardized and was found to be unreliable to assess the participants’ perceived knowledge ratings. Due to the large amount of sub-topics covered each week, one question per target topic on the questionnaire could not accurately assess overall knowledge. As an example, when assessing participants’ knowledge during the Healthy Eating week, participants may know about the food groups but not portion sizes. Due to the complexity of the questions, verbal prompting was needed to help participants make a choice when rating which could have lead to biased results.

Due to the short duration of The Healthy Lifestyles Group it was only possible to give a brief introduction to each topic covered. The session concentrated on the most important information related to the topic but, due to time constraints, other relevant information was omitted.
Future Program Recommendations

If The Healthy Lifestyles Group is used in the future it is recommended that facilitators find a more accurate tool to measure perceived knowledge ratings of the participants. Assessing perceived knowledge ratings before and after each weekly session would be beneficial. This would allow for more specific questions regarding the topic for that particular week, as well as, better recollection by the participants of what they had learned. It became difficult for the participants to remember how much they knew about each topic after several weeks had passed. More frequent and topic specific assessments would be beneficial in gaining more accurate results.

In future research, running the group over 10 weeks instead of six would allow two weeks for each topic. This extension would allow more time to be spent going more in depth into each topic. It is also recommended that a review period is added onto each session. The review period would allow the group to discuss the previous week’s topic briefly. This could help participants to retain the information presented in group for an extended period of time. It was not possible to include long term follow-up in this study. It would be recommended that in future research a review period be added and assessment of perceived knowledge ratings be done after an extended period of time.

All participants were aware that the group facilitator was a student and that The Healthy Lifestyles Group was being designed as an educational requirement for continuation in the facilitator’s studies. Participants may have been more likely to participate in The Healthy Lifestyles group knowing that it would be beneficial to the facilitator.

Multilevel Challenges

There are various challenges when working with clients who have a dual diagnosis. These challenges can be seen at: the client level, the program level, the organization level, and the societal level.

Client Level. Each client with a dual diagnosis is distinctly different. There are multiple combinations of diagnoses and each can present differently. It is also possible that, because one diagnosis may be more prominent then the other, a professional or the public may forget about other diagnoses a client has. This can prevent the client from receiving services in a way that would most benefit them.

Program Level. The staff members in the program were all dedicated to the well being and growth of all the clients involved in the program. Due to the schedule used, there were some periods when staff members did not see each other for extended periods of time. Being out of contact for so long made it difficult to keep behavioural strategies consistent with clients. This inconsistency left clients confused and staff members at a disadvantage.

Organization Level. The agency was very large and encompassed many different programs. Although team leaders of the programs tried to keep up with what was happening in all other programs it was difficult to keep track of all the clients. Not having staff knowledgeable about the other programs and clients within the agency increases the risk of clients getting lost in programs or not receiving the services that they need.
**Societal Level.** There are several challenges on the societal level when working with clients who have dual diagnoses. It is not always possible to tell that a person has a developmental disability just by looking at them, and can be even harder to tell if someone has a mental illness. The general population may be unaware that the client needs assistance and how to help them best. The general public may also make judgements of the client based on behaviours that they witness.

**Implication for the Behavioural Psychology Field**

With so little research regarding effective interventions with the dual diagnoses population, the Healthy Lifestyles Group shows that using group therapy is an effective way of teaching clients about healthy lifestyles. The Healthy Lifestyles Group also brings more awareness to the general public and professionals in the social services field regarding the difficulties that clients with dual diagnoses face regarding their health and well-being.

**Recommendations for Future Research**

More research needs to be completed regarding which treatment methods are most effective when working with clients with a dual diagnosis. It is also imperative that more research is conducted into the most effective way of delivering information to clients about their increased risk of living an unhealthy lifestyle and what can be done to prevent it. Short and long term data regarding risk reduction in participants after receiving knowledge of information related to healthy lifestyles should be collected. Surveying a sample of the dual diagnosis population to find possible relevant future topics should be completed.
References


TITLE: IMPLEMENTING A HEALTHY LIFESTYLES GROUP WITH DUALLY DIAGNOSED CLIENTS IN A SUPPORTED INDEPENDENT LIVING PROGRAM

STUDENT: JACKIE HARPER

COLLEGE SUPERVISOR: LANA DI FAZIO

INVITATION
I am a student in my 4th year in the Behavioural Psychology program at St. Lawrence College and I 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 any questions you might have before deciding whether or not to participate.

WHAT IS THE PURPOSE OF THE STUDY?
My project is to start a healthy lifestyles group within the [Redacted] apartment. The purpose of this project is to increase your knowledge about topics including healthy eating, physical activity, expressing emotions properly, emergency plans, and healthy relationships. It is the hope of this group that you will feel more comfortable and confident making healthy lifestyles choices.

WHAT WILL YOU NEED TO DO IF YOU TAKE PART?
If you agree to participate in the healthy relationships group you will be asked to attend one hour sessions, every Wednesday, in the common area of your apartment building for 6 weeks. These sessions will cover a variety of different subjects related to healthy lifestyles. You will also be asked to fill out a questionnaire with the help of staff before the group meets for the first time, at the beginning of the fourth week, and on the last week of the group. This questionnaire should take approximately 10 minutes and will assess your knowledge of topics that have been covered.

WHAT ARE THE POTENTIAL BENEFITS TO ME OF TAKING PART?
The potential benefits of participating in this project will be an increase in knowledge relating to healthy lifestyles. This should allow you to make changes in your life to increase your overall health.

**WHAT ARE THE POSSIBLE DISADVANTAGES AND RISKS OF TAKING PART?**

There are minimal risks to participating in this project but you will have to give up an hour per week to participate. Also, due to the nature of the group, you may feel uncomfortable or embarrassed at points during the discussions. There will also be a discussion on sexual abuse which may bring up negative memories for some.

**WHAT HAPPENS IF SOMETHING GOES WRONG?**

If you feel uncomfortable with any topics discussed during the group, you are welcome to speak to myself, another staff member, or to the group facilitator.

**WILL MY TAKING PART IN THIS PROJECT BE KEPT PRIVATE?**

Unless required by law, your participation in this project will be kept completely confidential. Information will be kept in a filing cabinet locked in the main office of the [Supported Independent Living Program](mailto:). Any information on the computer will be password protected and you will not be identified by name in any reports, publications, or presentations resulting from this project. You will be asked to respect the group confidentiality by not talking about anything discussed by group members during the sessions, or outside of the Healthy Lifestyles Group. Information collected during this study will be stored in your file at the agency for a minimum of 10 years. After the 10 years has passed, all the information will be destroyed.

**DO YOU HAVE TO TAKE PART?**

It is up to you to decide whether or not to take part. If you do decide to take part, you will be asked to sign this consent form. If you decide to take part you are able to withdraw at anytime, without giving any reason. Withdrawing from the program at anytime will not result in any changes in regards to the services provided to you by the agency. To withdraw from the program, all you need to do is tell a staff member that you do not wish to participate anymore. You will not have to explain why you have made this decision.

**CONTACT FOR FURTHER INFORMATION.**

This project has been approved by the Research Ethics Board at St. Lawrence College. The project will be developed under the supervision of Lana Di Fazio, my supervisor from St. Lawrence College. I really appreciate your cooperation. If you have any additional questions or concerns, feel free to ask me, Jackie Harper, at 613-217-0300 or you can contact my College Supervisor, Lana Di Fazio at lana.difazio@csc-scc.gc.ca You may also contact the Research Ethics Board at appliedresearch@sl.on.ca.
CONSENT

If you agree to participate in the project, please complete the following form and return it to me. A copy of this signed document will be given to you for your own records. An additional copy of your consent will be retained in the [supported independent living program's] office and in a secure location with the Behavioural Psychology program at St. Lawrence College.
CONSENT

By signing this form, I agree that:

- The research project has been explained to me.
- All 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 my personal information will be kept confidential.
- I agree to keep information presented by other group members confidential.
- I understand that 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 consent to participate.

Participant’s Printed Name: ____________________________

Signature: _______________________________ Date: ________

SLC Student Printed Name: ____________________________ Date: ________

Signature: _______________________________

Witness Printed Name: ____________________________ Date: ________

Signature: _______________________________
Appendix B: Verification Letter

St. Lawrence College

Behavioral Psychology

VERIFICATION LETTER

This letter is to confirm that written consent was obtained by Jackie Harper, Behavioural Psychology student at St. Lawrence College, to implement a healthy lifestyles program. The program was approved by Stacey Dowling and Lana Di Fazio. The written consent explained the details of the program, including the risks and benefits of participating. The consent forms were signed by the clients between 2011/10/27 and 2011/11/01.

The 8 consent forms will be kept in a locked storage cabinet at [REDACTED] for a minimum of 10 years according to the professional standard.

Jackie Harper
Student Name
(Printed)

Student Signature

November 10, 2011

Agency Supervisor Name
(Printed)

Agency Supervisor Signature

[REDACTED]

Date

[REDACTED] 2011

Date
Appendix C: Healthy Lifestyles Group Questionnaire

This questionnaire measures how much you think you know about each theme we talk about during the Healthy Lifestyles Group. Please read each question and circle the number that you think applies to how much you know:

1= I don’t know anything about this
2= I know very little about this
3= I know some things about this
4= I have a basic understanding of this
5= I know a lot about this

You are allowed to ask questions about anything you might not understand at any time. When you are done, please hand the questionnaire back to the staff member.

Participant Identification Number: Date Completed:
Gender: Male Female Age:
Questionnaire Type: Initial Mid Point Final

Please circle the number that best describes your answer to each question

1. How much do you think you know about healthy eating? This includes portion sizes, healthy choices, and healthy recipes.

   1  2  3  4  5
   None at all Very Little Some Basic Understanding A lot

2. How much do you think you know about physical exercise? This includes types of exercise, resources available to you, and the benefits.

   1  2  3  4  5
   None at all Very Little Some Basic Understanding A lot

3. How much do you think you know about proper emotional regulation? This includes expressing feelings like anger, anxiety, and happiness appropriately.

   1  2  3  4  5
   None at all Very Little Some Basic Understanding A lot

4. How much do you think you know about emergency/crisis plans regarding your physical and mental health? This includes information about what types of treatment you would like if something were to happen to you.

   1  2  3  4  5
   None at all Very Little Some Basic Understanding A lot
5. *How much do you think you know about healthy relationships? This includes information about what a friend is and is not, when things have turned into a romantic relationship, and what is sexual abuse.*

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<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<td></td>
<td>None at all</td>
<td>Very Little</td>
<td>Some</td>
<td>Basic Understanding</td>
<td>A lot</td>
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Quality Assurance Measures:
Healthy Lifestyles Group

Designed by: Jackie Harper (B.A.A. Behavioural Psychology)
Appendix E: Group Descriptive Statistics

Table E1 *Summary of Group Means, Medians, and Standard Deviations (SD) for Perceived Knowledge Ratings on the HLGQ at the Pre-test, Mid-Test, and Post-Test.*

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Appendix F: Raw Data for Individual Participants

Table F2 *Perceived Knowledge Ratings for Participant 1*

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Table F3 *Perceived Knowledge Ratings for Participant 2*

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Table F4 *Perceived Knowledge Ratings for Participant 3*

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Table F5 *Perceived Knowledge Ratings for Participant 4*

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Table F6 *Perceived Knowledge Ratings for Participant 5*

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Table F7 *Perceived Knowledge Ratings for Participant 6*

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Table F8 *Perceived Knowledge Ratings for Participant 7*

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Table F9 *Perceived Knowledge Ratings for Participant 8*

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Appendix G: Graphs Representing Individual Participants

Figure G2. Perceived knowledge ratings for Participant 1

Figure G3. Perceived knowledge ratings for Participant 0
Figure G4. Perceived knowledge ratings for Participant 3

Figure G5. Perceived knowledge ratings for Participant 4
Figure G6. Perceived knowledge ratings for Participant 5

Figure G7. Perceived knowledge ratings for Participant 6
Figure G8. Perceived knowledge ratings for Participant 7

Figure G9. Perceived knowledge ratings for Participant 8