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**EVALUATION OF AN ABUSE PROTECTION EDUCATION PROGRAM FOR
ADULTS WITH DEVELOPMENTAL DISABILITIES**

by

Karen Elizabeth Klee

Graduate Degree, Wilfrid Laurier University, 2015

THESIS

Submitted to the Faculty of Education

in partial fulfillment of the requirements for

Master of Education

Wilfrid Laurier University

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Abstract

An evaluation of an abuse protection education program was conducted for adults with developmental disabilities who receive supports and services from two Community Living Ontario agencies. Abuse education is mandated within the province of Ontario but few empirically evaluated curricula exist to help organizations provide effective education for this vulnerable population. A sample of 61 adults with varying degrees of cognitive ability were randomly assigned to one of three groups: control; information-only educational lessons; and an expanded program providing additional lessons on decision-making and behavioural skills thought necessary to prevent, recognize and report abuse. This program has been developed to be easy to use, inexpensive, comprehensive, engaging and sensitive to the potential for re-traumatization for participants with an abuse history.

Results indicated that regardless of treatment group assignment, people with *higher* cognitive abilities performed better on all test instruments at pretest and posttest as compared to people with *lower* cognitive abilities and that women generally performed better than men. In regards to treatment impact there was limited statistically significant evidence but substantial anecdotal evidence to indicate that participants who received the entire curriculum demonstrated improvements in abuse protection knowledge and skill acquisition at posttest. However, the gains made eroded within 5 weeks of education. Similar results were seen in a naturalistic case study group of 13 adults with *higher* cognitive abilities. Previous research suggests that if programs such as this one were delivered over longer periods of time and included regular ‘booster’ lessons, statistically significant findings could be more robust. Access to reliable and valid instruments to

measure abuse protection knowledge and skills remains a limitation for accurate evaluation of programs such as this one. The results have implications for agencies in Ontario who are required by legislation to provide abuse awareness for adults with developmental disabilities.

Acknowledgments

My journey through the Master's of Education Program at Wilfrid Laurier University has many stories. There is my very personal journey from nurse to educator. There is the story of a pioneering and collaborative voyage into community-based research involving WLU, Fanshawe College, two Community Living Agencies and 74 people with developmental disabilities and finally the more traditional story of research told within these pages. All of the stories involved a significant number of supporting characters and simply would not have been possible without the generous donations of time, money, and support by the following people.

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Funding for this project was generously provided by the Southern Network of Specialized Care, Developmental Services Leeds and Grenville (DSLGS) and by Fanshawe College's Research and Innovation fund. Thank you to Dr. Beth Anne Currie (Southern Network) and Geoff McMullen (DSLGS) for sharing their valuable network connections, cheerleading skills and for the financial support that allowed Fanshawe College students to present this research project at the Ontario Association for Developmental Disabilities.

That brings me to my research students. Six Fanshawe college students took the unique, challenging and pioneering voyage into research by working with me as research

assistants in lieu of a more typical Developmental Services Worker practicum. Holly Morris, Grace Merrifield, Brittany May, Samantha Germaniuk, John Thomas and Fredy Roderiquez set the bar high for future students in the field of Human Services at Fanshawe College. They were a committed, creative and responsive team that worked extra hours not only to complete data collection and provide the abuse education for 74 people but also to showcase their work at Fanshawe's Research and Innovation day in March 2015 and the OADD conference in April 2015. I could not have been more proud of their dedication, creative problem-solving skills and the authentic and professional way they interacted with the research participants and those who support them.

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Evaluation of An Abuse Protection Education Program For Adults With Developmental Disabilities

Some of Ontario's most vulnerable citizens are at heightened risk for maltreatment. A number of studies have documented significantly higher rates of abuse, especially sexual abuse, amongst children and adults with intellectual disabilities. In a meta-analysis of the literature for the broader definition of interpersonal violence, Hughes, Lund, Gabrielli, Powers, and Curry (2011) noted the paucity of empirical research for this population, but were able to suggest that lifetime experiences of all types of abuse for women with disabilities range from 26-90% and lifetime abuse for men with disabilities ranges between 29 - 86%.

In efforts to address the higher rates of abuse amongst people with developmental disabilities, Ontario's Ministry of Community and Social Services introduced Quality Assurance Measures: Regulation 299/10 in January 2011 under the *Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act, 2008*. A large component of Regulation 299/10 dictates the need for abuse education at all levels of support, right from volunteers to board members. Part II, Section 8.c specifically refers to the education requirement for adults with developmental disabilities. It states the need for "mandatory education and awareness-building on abuse prevention and reporting to persons with a developmental disability receiving services and supports from the service agency in a language and manner that is appropriate to the capacity of the person with a developmental disability when the person begins to receive services and supports from the service agency and every year thereafter" (Services and Supports to Promote the

Social Inclusion of Persons with Developmental Disabilities Act, 2008 - O. Reg. 299/10, 2010, p. 7).

Formal and informal curricula are widely available to assist educators (staff or clinicians) to meet the educational needs of people with developmental disabilities, but very few of these curricula have been empirically studied to determine knowledge acquisition and retention resulting from their implementation. In a systematic review of the current literature, researchers with the World Health Organization identified only 10 comprehensive studies aimed at preventing and responding to violence against people who have disabilities and ranked all as weak using a quality assessment tool (Mikton, Maguire, & Shakespeare, 2014). This thesis will explore the vulnerabilities to abuse of adults with developmental disabilities, review the literature for current abuse prevention programs, and summarize assessment tools available to measure knowledge and skill acquisition. It will present results from an evaluation of one abuse prevention program developed in Southwestern Ontario for adults with developmental disabilities. Finally, it will conclude with a broad range of recommendations to guide best practice for agencies striving to meet Quality Assurance Regulation 299/10 or similar legislation and highlight future research needs¹.

Abuse and People with Developmental Disabilities

Prevalence of abuse. The numerous differences in research methodologies, combined with the lack of data collected about a broad range of abuse/interpersonal violence specific to people with intellectual disabilities, make it challenging to draw

¹ A glossary of terms is located in Appendix A

conclusive statements about the prevalence of abuse (Hughes et al., 2011). Lutzker, (2012a) noted that the significant variation, and sometimes contradicting, prevalence rates within the current literature is in large part due to varying operational definitions of disability and violence. As well, the large variation in prevalence rates noted by Hughes et al. (2011) are in part due to variations in surveillance techniques. Using only abuse rates where the perpetrators have been convicted denies the lived experience of many people with intellectual disabilities; however, to use a less legal classification of abuse increases the risk for false positive incidents. The lack of a consistent method of determining what constitutes abuse also contributes greatly to the wide range of reported abuse rates (McCarthy & Thompson, 1997). However, there is a growing number of studies that attempt to use similar definitions to determine prevalence and risk factors for abuse, types of abuse experienced by people with disabilities, and indications of who perpetrates the abuse. However, there still exists a lack of longitudinal studies using consistent definitions that allow for more precision in determining rates of abuse for adults with developmental disabilities (Mikton et al., 2014).

Early prevalence studies focused primarily on sexual abuse of women and children with disabilities (Brown, Stein, & Turk, 1995; McCarthy & Thompson, 1997). Researchers in the UK conducted a four-year survey with service providers; of the 228 adult participants involved, almost 32% had at least one proven incident of sexual abuse (Brown et al., 1995). Proof of an incident was a rating scale developed by the researchers which took into consideration victim testimony, perpetrator confession, physical evidence, significant behavioural/emotional changes and witness accounts. In the same UK study, there was an additional 50% of respondents that had experiences that were highly

suspicious of sexual abuse but could not be proven because they rated lower on their scale (Brown et al., 1995). Another group of British researchers examined data involving adults with intellectual disabilities and the prevalence of sexual abuse amongst those who had been referred for sex education, and noted that 61% of the women and 25% of the men had a reported history of sexual abuse (McCarthy & Thompson, 1997).

Many of the studies that are available focus primarily on sexual abuse of women and children with disabilities, while emotional/psychological abuse, financial mistreatment and neglect are rarely reported in the literature. As experts recognized the need to expand the definition of abuse beyond the realm of sexual assault, tracking incidents became even more challenging due to a lack of consensus about abuse definitions and relatively few research studies ($n = 5$) include all types of maltreatment in their data set (Hughes et al., 2011). Horner-Johnson and Drum (2006), in their review of published research, stated that “despite the overall limitations of the current literature, it does continue to indicate that the prevalence of maltreatment is higher among people with an intellectual disability than among people with no disabilities” (p.66). American researchers conducted *A Safety Awareness Program (ASAP)* for 213 women with a range of disabilities and noted that 71.4% had experienced at least some form of abuse in their lifetime, with physical abuse being the most common (66.5%), followed by sexual abuse (45.1%) and finally by neglect or refusal of assistance with medical needs 21% (Robinson-Whelen et al., 2014). Considering the rates of maltreatment, it is not surprising that Ontario’s government took such a systemic approach to bring awareness to this important social and criminal injustice.

Identifying the victims and the perpetrators. As well as understanding the pervasive nature of the problem, it is also important to understand who are the victims, and who are the people committing the crimes. In a 15-year longitudinal study, Irish researchers McCormack, Kavanagh, Caffrey, and Power (2005) gathered data from a service agency that provided supports for 1450 clients. Each year there were between 10 and 36 reports of abuse (mostly sexual in nature). Of the total 118 confirmed cases of sexual abuse, 56% of the perpetrators were peers with intellectual disabilities and 43% were family or people who supported the victim, while only 1% involved sexual abuse by strangers (McCormack et al., 2005). Earlier studies by Brown et al. (1995) also identified that perpetrators are either members of the support team (family and paid providers) or other peers with intellectual disabilities. Perpetrators are more likely to be male [98% in (McCarthy and Thompson's five year study (1997) and 94% in the 15 year study conducted by McCormack and colleagues (2005)] and victims are more likely to be female, although the data vary considerably on this factor, with 7% of victims being male in a South African study (Dickman & Roux, 2005) to almost 50% in an Irish study (McCormack et al., 2005). The fact that victims of abuse are far more likely to know, work or live with their perpetrators adds an additional layer of complexity when considering the best abuse-protective education program for adults with disabilities.

Maltreatment is not restricted to any one age group. An examination of studies comparing children with intellectual disabilities to those without disabilities found rates of maltreatment up to 7.66 times higher amongst children with disabilities (Horner-Johnson & Drum, 2006). Researchers in South Africa worked with more than 100 people with confirmed intellectual disabilities over a 10-year pilot project aimed at supporting

victims of sexual crimes through the justice system (Dickman & Roux, 2005). They found that the average age of the victim was 18.5 years old, but in 40% of the cases victims were under 16 years of age at the time of their assault and only 46% of the victims were both old enough and capable enough to consent to sexual intercourse (Dickman & Roux, 2005). A recent call for papers by the *Journal of Mental Health Research in Intellectual Disabilities* confirmed the afore-mentioned prevalence rates of abuse and neglect for children and adults, but also noted emerging trends that identify increased incidents of elder abuse and exploitation for people with disabilities (Lutzker, 2012b). The combined results of these studies suggest that this group of people remains vulnerable to abuse throughout their lifespan due to an interaction between their social environment and certain underlying factors such as altered communication, lack of education, and diminished self-esteem (Bruder & Kroese, 2005).

Most incidents of sexual abuse do not result in police investigation, let alone conviction, and until recently if the perpetrator was another peer with an intellectual disability, the incident tended to be handled internally and an official report rarely went past an investigation by senior management (McCarthy & Thompson, 1997). However, as more attention has been drawn to this topic, there has been an increase in third party investigations (McCormack et al., 2005). Of great importance is the fact that only half of the abuse disclosures are a direct result of victim accounts (McCarthy & Thompson, 1997; McCormack et al., 2005). The other 50% of the time, the abuse comes to light because either the perpetrator confesses or care providers raise the alarm (McCarthy & Thompson, 1997; McCormack et al., 2005). As well, McCarthy and Thompson (1997) found over their 5-year study that only 55% of women with an intellectual disability were

believed while 100% of the men who were sexually abused were believed. This is likely because of a bias amongst care givers against same sex violence and relative acceptance of heterosexual abuse (McCarthy & Thompson, 1997).

Vulnerability and the need for appropriate education and training. People with intellectual disabilities are vulnerable to abuse for a wide variety of reasons. Factors such as social isolation, learned compliance, care provider reliance and a strong desire to please others put young people with disabilities at increased risk of exploitation (Tsui, 2008). People may not recognize a dangerous situation or they may lack the skills to avoid or escape from a situation of harm. Most importantly, they may lack the ability to relay the information and social context correctly to a person who can help them (Mazzucchelli, 2001). Hickson, Khemka, Golden, and Chatzistyli (2013) compared the views of professionals in the field of developmental disabilities with professionals in the field of domestic/sexual violence on the prevention and handling of sexual abuse. Both groups identified the following common factors as vulnerabilities to sexual abuse: the lack of abuse prevention education for people with disabilities; difficulty understanding high risk situations; the need to be liked or wanted; the social expectation to conform to authority; and the ease with which people are lured by their desire for friends and intimacy (Hickson et al., 2013).

Using their own integrated ecological model of abuse, Sobsey and Doe (1991) identified interactions between four main systems that contribute to the maltreatment of children with disabilities: the potential victim, the potential offender, the immediate environment and the culture. Aside from the risk factors already identified for the potential victim, Sobsey (2002) pointed to predatory caregivers being attracted to human

services because of access to vulnerable people and a system that does little to protect those at risk. As well, a culture that depersonalizes, devalues and blames the child with a disability increases the risk for maltreatment by disinhibiting violence by the perpetrator (Sobsey, 2002). As adolescents with disabilities mature into young adults they continue to be exploited sexually due to a lack of information about what constitutes a healthy sexual relationship (Tsui, 2008). The literature is compelling in identifying that all people with developmental disabilities are at increased risk of abuse, especially sexual abuse, for the reasons listed above, although it is also important to note that people with severe disabilities are at the highest risk of all (Mahoney & Poling, 2011).

Evidence-based approaches to reduce rates of abuse. Experts in the field agree that to reduce rates of abuse, a multifaceted approach is necessary that addresses education of the person with a disability in the areas of assertiveness, abuse defensive strategies and healthy sexuality. In addition, improved care-provider screening methods and staff/caregiver education related to sexuality and abuse is essential. However, despite growing sexual abuse prevention education programs available for the general public and youth, there is a dearth of empirical data to support the efficacy of these programs for women (or men) with developmental disabilities (Barger, Wacker, Macy, & Parish, 2009). There remains ambiguity on what exactly constitutes information appropriate to capacity, and what constitutes sufficient training or awareness building. That is, do we simply provide information about abuse and how to report it, or do we provide information as well as enhance decision-making capabilities and provide behavioural skills training in ways that are evidence-based? If the goal of the Quality Assurance Measures is to reduce risk levels for adults with intellectual disabilities, decisions regarding the content and

delivery of educational programs should be driven by empirical evaluations to determine effectiveness and efficiency.

Barger et al. (2009) reviewed literature for empirically evaluated sexual violence prevention programs for women and were only able to identify four distinct programs. Doughty and Kane (2010) reviewed the literature and found that since 1997, there were only six studies relating to the training of abuse prevention skills for people with developmental disabilities. Mikton et al. (2014) conducted another meta-analysis on programs published in the literature since 2000 aimed at reducing interpersonal violence and noted that none of them actually measured abuse rates but rather only assessed abuse protection skills. This raises the obvious question of whether or not abuse protection skills actually reduce abuse rates. However, all three meta-analyses highlight the paucity of information on educational interventions that provide meaningful, effective and enduring abuse protection skills. This does not mean that the programs currently used are ineffective; rather, that we simply do not know if they are doing what we want them to, which is to help keep people safe from abuse. This approach has been coined the ‘deliver and hope’ method (Barger et al., 2009).

A number of researchers support the need for evaluation of educational programs across age and geography. For example, Lamorey (2010), working with teens and disabilities, recommended that if communities are interested in implementing risk reduction education it is also important to assess outcomes. Using qualitative data collected from people with disabilities and those that support them, Australian researchers identified a “large unmet need for well designed, properly evaluated education for people with intellectual disabilities” (Eastgate, Scheermeyer, vanDriel, &

Lennox, 2012, p. 138). Similarly, clinicians evaluating sexual abuse risk reduction strategies for children with disabilities recommend that future research be focused on evaluation models that assess the impact of teaching programs and skill development on the ability of children to reject abuse lures, *and* on the overall reduction of abuse rates (McEachern, 2012).

Consideration of evaluated educational programs for abuse risk reduction. It is important to review the literature to determine effective educational approaches to employ when providing abuse prevention education. Upon examination of the studies, it is apparent that many evaluated programs focus on sexual abuse prevention such that effective interventions for all types of abuse would need to be extrapolated from the more focused sexual abuse prevention programs. The Public Health Agency of Canada (2003) conducted extensive research into effective theoretical models that could be applied to sexual health education and outlined those models in the *Canadian Guidelines for Sexual Health Education*. Theoretical models empirically evaluated to be effective included Social Cognitive Theory, the Transtheoretical Model, the Theory of Reasoned Action & Theory of Planned Behaviour, and the Information, Motivation and Behavioural Skills (IMB) Model (Public Health Agency of Canada, 2003).

The Public Health Agency chose to use the Information, Motivation and Behaviour (IMB) Skills model for the sexual health education guidelines because the model had been researched extensively and was found to reduce sexual risk behaviour in a diverse group of populations including young men, women from low income families and at risk youth in minority groups (Public Health Agency of Canada, 2003). The three essential elements of the model can be summarized as follows: 1) to provide information

to improve understanding of the sexual health topic; 2) to motivate the individuals to use their knowledge and understanding to avoid high risk behaviour and improve confidence; and 3) to assist a person to acquire the relevant behavioural skills that will contribute to the reduction of negative sexual health outcomes. The *IMB* may be an effective overarching educational model that can be applied to the abuse prevention education of people with disabilities.

When conducting a meta-analysis of the abuse prevention programs for adults with an intellectual disability, Doughty and Kane (2010) isolated six recent studies. Only two different educational approaches were used amongst these six studies, namely Behavioural Skills Training (*BST*) and Effective Strategy-based Curriculum for Abuse Prevention and Empowerment (*ESCAPE*), a cognitive decision-making curriculum. When comparing and contrasting these six studies, both approaches demonstrated skill acquisition immediately following intervention and retention on post-tests up to three months after the program (Doughty & Kane, 2010).

BST involves information giving, modeling, rehearsing, praise and feedback. It is the more studied approach in recent literature (Doughty & Kane, 2010). *BST* does not address the motivational factor that the *Canadian Sexual Health Education Guidelines* endorse. However, researchers have demonstrated that *BST* can improve knowledge and performance in role-play scenarios (Lumley, Miltenberger, Long, Rapp, & Roberts, 1998; Miltenberger et al., 2009). More recently, Bollman and Davis (2009) used *BST* with two women who had intellectual disabilities and were able to determine generalization of the knowledge and skills to novel situations by exposing the participants to new situations in unfamiliar surroundings, and role playing the tasks involved in

rejecting and reporting the abuse lure. Emphasis has also been placed upon generalization to realistic scenarios in current research as evidenced by exposing participants earlier in the education to confederates posing as staff in abuse lures. If the participants did not demonstrate protection skills during these ‘real-life’ role plays, the assessment was stopped and immediate feedback and *BST* were provided. The combined modalities of *in-situ* assessment with immediate feedback and training have been termed *in-situ training* (Egemo-Helm et al., 2007). Furthermore, a combination of *BST* and *in-situ* training has been shown to improve generalization skills on the next or subsequent *in situ* lures (Egemo-Helm et al., 2007).

Based on the literature reviewed by Doughty and Kane (2010), all of the adult participants in this *BST* research were women ($n=15$) with mild to moderate developmental disabilities, and only sexual abuse lures were investigated. Bollman and Davis (2009) assessed physical, sexual and verbal abuse in their *BST* research. However, only two women with mild intellectual impairments participated in that study. Over all, the sample sizes were small and restricted to women with mild cognitive impairments, which does not allow the results to be generalized to the larger population of adults with a variety of intellectual capabilities.

The second teaching strategy discussed in the meta-analysis by Doughty and Kane (2010) was the *ESCAPE* method, which employs a more cognitive and motivational approach to decision making. Only two recent research studies investigate the *ESCAPE* method of teaching abuse protection skills. Similar to *BST*, this model provides information but places more emphasis on the motivational component involved in the cognitive decision-making process and less emphasis on behavioural skills. Generally,

the *ESCAPE* model involves two themes: 1) knowledge of abuse and empowerment and; 2) self-directed decision making strategies. Behavioural skills are imbedded in these two themes and support is also provided by peers and staff in a structured support group setting (Khemka, Hickson, & Reynolds, 2005). Both of the *ESCAPE*-based studies reviewed by Doughty and Kane (2010) involved women ($n = 72$) with mild to moderate cognitive impairments and used sexual, physical and verbal abuse scenarios. Researchers did not complete *in situ* evaluations but knowledge retention was observed in follow-up posttests conducted three months after the initial *ESCAPE* training. The format for teaching the *ESCAPE* program was group focused and social skill based, which allowed for a larger sample size in comparison to the *BST* method, yet it demonstrated similar effects across knowledge acquisition and post-test evaluations. Although both the *BST* and *ESCAPE* teaching strategies employed at least two of the three requirements outlined in the *IMB* model, the *ESCAPE* more closely reflects the *IMB* model endorsed by the *Canadian Guidelines for Sexual Health Education*.

Aside from the programs described by Doughty and Kane, there are several other training approaches cited in the literature which targeted unique topics within the developmental sector or which were published after their meta-analysis in 2010. First, Lee, McGee, and Ungar (1998) described a qualitative evaluation of a computer based safety skills program for children with disabilities. They went on to conduct further research adding quantitative analysis three years later (Lee, McGee, & Ungar, 2001). The program capitalized on computer based images and scenarios and accompanying role-plays with activities that each child could progress through with as much or little help as they needed. It showed considerable promise for both “more and less abled”

children and had the added benefit of being consistent and uniform in its delivery method (Lee et al., 2001, p. 206).

Long and Holmes (2001) evaluated a more general form of street safety for adults called *Keeping Safe*. Initially, they consulted the literature, local schools and police departments and were unable to find a suitable age-appropriate teaching program for adults with intellectual disabilities, so they developed their own. The program moved away from using the typical approach of defining abuse and practicing how to recognize and respond to abuse lures, to a more general preventative approach of recognizing unsafe situations in the community and stranger awareness. The results indicated achievement in safety skills after attending the group (Long & Holmes, 2001). However, given that strangers are the smallest group of predators, broad-reaching abuse prevention programs need to focus on a wider range of safety skills. Australian researcher Trevor Mazzucchelli (2001) piloted a similar program called *Feel Safe*, which included many of the items in the *Keeping Safe* program but also included self-assertion and problem-solving skills. It relied on role-plays, modeling and interactive teaching strategies to convey the self-protection skills and it too showed promise as an effective program (Mazzucchelli, 2001). It was one of the programs reviewed by the WHO researchers, but was deemed ineffective due to a small sample size ($n=10$ treatment group and $n=10$ for control group) and insufficient statistical power to detect effects (Mikton et al., 2014).

Another group of Irish researchers conducted an extensive program with seven sexual abuse survivors that focused on sexual knowledge and techniques aimed at reducing the mental health effects of trauma, including depression, anger, low self-esteem and aggressive or self-injurious behaviour (Peckham, Howlett, & Corbett, 2007). The

five-month program again showed promise at increasing sexual health knowledge and reducing the effects of trauma, but the sample size was small, involved only women and did not include a control group for comparison (Peckham et al., 2007).

Recent literature includes three studies not included in the Doughty and Kane meta-analysis. First, Lund and Hammond (2014) completed an anecdotal evaluation of the *SAFE (Stopping Abuse for Everyone)* curriculum developed by the Pennsylvania Coalition against Rape as a single session teaching strategy for people with developmental disabilities in rural areas who are unable to attend multi-session groups. The curriculum focused on defining sexual, financial, physical/emotional abuse and neglect and being able to differentiate between abuse and non-abuse situations. The program employed techniques previously shown to be reliable, including kinesthetic teaching strategies with multimedia, multiple exemplars, repetition, and flexible scenario-based lecture styles (Lund & Hammond, 2014). The participatory action survey results again show promise for improved protection skills but the program has yet to be empirically evaluated (Lund & Hammond, 2014).

Researchers in Alaska piloted a *Friendship and Dating* teaching program for adults with a developmental disability aimed at reducing interpersonal violence in intimate relationships (Ward, Atkinson, Smith, & Windsor, 2013). Their results indicated an increase in social networks and a decrease in episodes of interpersonal violence for 31 participants 10 weeks after participating in the course. They used a variety of teaching strategies including role play and modeling as a means of conveying information and practiced techniques in natural settings such as malls, coffee shops and parks (Ward et al., 2013).

Finally, in an extensive randomized control study involving 213 women with a wide range of disabilities, a group of American researchers evaluated the *ASAP (A Safety Awareness Program)* which was designed by women with disabilities for other women with disabilities (Robinson-Whelen et al., 2014). The study involved a train-the-trainer approach across 10 Centres for Community Living and measured response on issues such as self-care efficacy and abuse awareness. The program showed encouraging results as participants in the intervention group scored significantly higher than the control group at posttest and/or follow-up for all measured protective factors such as behavioural safety skills, abuse awareness, and self-efficacy and is one of the only studies involving peer trainers or developers (Robinson-Whelen et al., 2014).

Separate from specific teaching programs are recommendations made by Sullivan and Caterino (2008) specifically for people with Autism Spectrum Disorder (ASD). Due to the lack of research associated with sexual health education for people with ASD, they recommended previously successful strategies employed for other social skills, including the naturalistic and social component of Applied Behaviour Analysis, called *Pivotal Response Training*; didactic instruction (stepwise instruction paired with visual cues); *BST*; and role-playing (Sullivan & Caterino, 2008). Similarly, Japanese researchers demonstrated that by including social skill development in their sexual health education programs, participants were better able to navigate the communication and problem-solving tasks required when establishing healthy relationships (Hayashi, Arakida, & Ohashi, 2011). The abilities to problem solve and communicate assertively during abuse lure scenarios are key to protection skills as well, and both skills should therefore also be considered key components of any educational program (Khemka et al., 2005). Tailored

interventions that make use of technology and augmentative tools such as pictorial/graphic prompts and extra time are also essential in the teaching strategy context (Lutzker, 2012a).

It is also important to be cognizant of the context of the ‘classroom’ experience. Engagement in the curriculum by participants, ease of use for educators, flexibility, and adaptability are all necessary to consider when approaching the topic of abuse prevention. The empirical data supporting a teaching strategy is of little value if people will not participate in the program, or educators find it too unwieldy to deliver. “Only when the right sex education is delivered in the right context can we hope to see changes in knowledge, attitudes, and perhaps even behaviour, in line with what is desired by policy makers and others” (Buston, Wight, & Hart, 2002, p. 332).

Summary and limitation of extant research for teaching strategies. The current literature provides guidance to clinicians and researchers about the types of teaching strategies to employ. Both behaviour skills training and empowerment/cognitive decision-making strategies appear to be effective approaches in abuse protection education. Measurement tools used by both the *BST* and *ESCAPE* educational programs were also effective at capturing data about knowledge transfer and, to a lesser extent, skill acquisition. As well the current literature tells us is that an effective abuse protection program should include: 1) the information necessary to keep safe from harm; 2) behavioural, communication and decision making skills necessary to navigate abuse lures and report events; 3) the motivation and empowerment necessary to enhance the learned behavioural skills; and 4) designs that are kinesthetic, flexible, and engaging and that

utilize rehearsal as essential components in the learning and evaluation process (Bruder & Kroese, 2005).

Although effective teaching strategies are documented in the literature, evaluated programs have typically targeted small groups of participants with a narrow focus (e.g., sexual abuse awareness for women with mild intellectual disabilities) and therefore challenges exist to generalize the observed positive effect to the broader group of adults with diverse developmental disabilities who may experience all forms of interpersonal violence (Mikton et al., 2014). Research is very limited on the types of abuse experienced by men with intellectual disabilities and nascent on the benefits of group training for men's abuse protection skills (Doughty & Kane, 2010). As an example of the limited scope of research participants, a quick summary of the 10 different programs discussed within this literature review revealed the following snapshot. Approximately 413 people with disabilities participated in nine of the programs reviewed thus far [exact numbers are unknown because Lund and Hammond (2014) did not report the number of participants in the Single Session *SAFE* program]. When examining the populations in detail, fifty participants (12.5 %) were children, 284 participants (70%) were women with mild to moderate disabilities and 69 participants (17%) comprised both men and women in the mild to moderate range of disabilities in their research group. Of the nine programs that involved adults, six of them focused primarily on sexual abuse prevention, while three examined the broader definition of abuse or interpersonal violence. None of the programs described adaptations or effectiveness for people with more severe cognitive impairments.

As mentioned earlier, people with severe cognitive delays are at the highest risk

for sexual abuse, and are most commonly victimized by their care providers (Mahoney & Poling, 2011). Again, research is nascent for techniques and strategies to improve protection skills for this vulnerable population. An obvious starting point would be to determine if interventions shown to be successful for people with milder disabilities can be adapted for use with people who have severe intellectual disabilities or multiple physical and cognitive challenges (Mahoney & Poling, 2011).

Preventing, Recognizing and Reporting Abuse curriculum. In response to Regulation 299/10, the Abuse Prevention Education Committee of Waterloo Region developed a 10-lesson curriculum based on the theoretical model of *Information, Motivation and Behaviour skills (IMB)*, supported by the Public Health Agency of Canada in its *Sexual Health Education Guidelines* (Public Health Agency of Canada, 2003). The Abuse Prevention Education Committee consisted of various clinicians and front-line professionals from across the Region of Waterloo. This researcher participated in the development of the curriculum, as well as serving as coordinator and editor for the project. The curriculum aims to teach basic information about the various types of abuse and describes strategies to seek assistance when abuse is suspected. Included in the lessons are numerous opportunities for the learner to acquire an understanding of the various types of abuse, identify fundamental reasons to prevent abuse (motivation) and ample opportunity to practice the skills necessary to stop abuse and to report abuse, thereby incorporating all three aspects of the theoretical *IMB* model. The program is appropriate for a variety of learning styles and takes advantage of a range of teaching methods, including role plays, games, and decision-making formulas. (See Appendix B for an introduction and lesson outline of the *Preventing, Recognizing and Reporting*

Abuse curriculum.) The program evaluated in this study captures the essential teaching strategies of information and instructions, rehearsing and opportunity to practice during role-play scenarios as described in literature review (Bruder & Kroese, 2005). The framework for the curriculum was designed primarily using the key elements of the *IMB* model of sexual health education (Public Health Agency of Canada, 2003).

Research Questions and Evaluation of an Abuse Protection Education Program

Translating the idea of completing a program evaluation as it relates to abuse education in Ontario involves the assessment of curriculum design, curriculum delivery, classroom context, facilitator effectiveness and participant satisfaction. Two initial measurable research questions were the target of the program evaluation.

1. Is there a measurable benefit in abuse protection knowledge and skills for adults with developmental disabilities who receive an abuse protective educational program that encompasses an information, motivation and behavioural skills delivery model compared to an information-only based model?
2. Do adults with developmental disabilities perform differently on measures of abuse protection knowledge and skills depending on their age, geographical location, gender, and developmental level of ability after experiencing one or the other program models?

To answer these first two research questions, the *Abuse Protection Concept Questionnaire (APCQ)* and the *Abuse Protection and Decision-Making Task-Analysis Checklist (APDTC)* were developed to measure abuse protection knowledge and abuse protection skills respectively. Although the two instruments were modeled on the previously evaluated research questionnaires and checklists, they are novel measurement

tools. While assessment of the measurement tools was not a primary focus of the research, it is critical that work begins on reliable and valid measurement tools that can be used by agencies across Ontario, or beyond, to measure and monitor the progress to abuse protection skills for adults with developmental disabilities. Although there is no associated hypothesis, an important third research question arises.

3. Is there preliminary evidence that the *APCQ* and the *APDTC* are valid and reliable measurement instruments?

Finally, while it is beyond the scope of this research to determine if the evaluated program effects a reduction in the lifetime rate of abuse for the research participants, the broader question of whether this or any other abuse prevention intervention effects a positive change in the ecological model of abuse should never be far from the minds of researchers (Sobsey, 2002). The ultimate goal of providing abuse awareness for adults with developmental disabilities is to reduce vulnerability to abuse. A vulnerable person however, is only one construct of the ecological model of abuse. Therefore, an expectation that abuse awareness for the potential victim, in isolation from measures that reduce the other contributing factors to abuse, will be sufficient to reduce rates of abuse is inaccurate (Sobsey, 2002). The vulnerable person should not be taken out of context of the pervasive nature of the problem and the need for a systemic solution to lower the current staggering rates of abuse (Khemka, Hickson, & Reynolds, 2005; Hughes et al., 2011).

Measuring Abuse Protection Skills

Regardless of the kind of abuse protection intervention being evaluated, researchers face formidable methodological issues including how to measure the success

or failure of programs to improve skills in their participants, demonstrate whether the skills can be translated to naturalistic settings, and ultimately reduce the potential for abuse for people with intellectual disabilities (Mahoney & Poling, 2011). Reducing the risk of experimenter bias and improving observer reliability, as well as formulating standardized comparison across participants, becomes more challenging without the use of pre-existing and proven assessment tools. Standardized assessment tools have to be adapted, or researchers need to develop novel rating scales or other measures to meet the unique needs of this population. Often measurement cannot rely on self-reports or self-documentation, but instead requires adaptations that incorporate more verbal and visual prompts, demonstration by the participant in role-play type formats, and then an evaluation of the performance of a participant using a task analysis checklist (Finlay & Lyons, 2001).

Lack of standardized measurement tools. There are only a handful of abuse protection test instruments used for adults with disabilities within the literature and none are standardized; most are weak or ineffective in their statistical power, usually because they have been tested on small sample sizes (Mikton et al., 2014). To date, the only standardized tools measure non-disabled children's abuse prevention knowledge. After completing a meta-analysis, Bruder and Kroese (2005) also noted that evaluation tools should measure the key abuse protection elements of information, modeling and rehearsal (skill demonstration) in the classroom **and** in naturalistic settings. None of the assessment tools developed for adults with disabilities included all of these key elements. Based on the review of teaching strategies already discussed, an examination of the

available assessment and measurement tools was conducted beginning with the tools used in the two main teaching strategies of the *BST* and the *ESCAPE* programs.

Assessment tools for evaluating program effectiveness. The *BST* assessment involves identifying the desired behaviour and creating a task analysis check-list for measuring the desired behaviour (Miltenberger et al., 2009). After participants have undergone *BST*-style education, they are exposed to either enacted abuse scenarios on videotape or *in-situ* abuse lures using confederates. Their performance in response to abuse lures is then measured using the task analysis checklist. Assessments are made prior to the teaching intervention as a baseline for comparison to the post-intervention assessments. As an example of how this general approach is used, Egemo-Helm et al. (2007) employed three assessment tools in their work with five women focused on sexual abuse prevention. These tools included: 1) self-reporting of how the person would respond to a scenario described to her; 2) role-play evaluations; and 3) *in-situ* assessments with immediate feedback continuing until criterion levels were obtained. Target behaviours were measured using a four-point scale of observed responses to abuse scenarios, with one point awarded for each of the following behaviours: a) not complying or engaging in requested behaviour; b) communicating “NO” verbally or non-verbally; c) leaving the situation; and d) telling someone. All four responses were weighted equally and a participant could only score four points if they demonstrated all four of the behaviours. As the scale simply measures these four actions or inactions, only inter-observer reliability is measured and for these few women, the interrater reliability was 100% (Egemo-Helm et al., 2007)

In a more recent study, Bollman and Davis (2009) employed *BST* training but used videotaped abuse scenarios that required participants to recognize and discriminate between abusive and non-abusive situations. If participants recognized an abusive situation, researchers used a role-play format to evaluate their abuse protection skills using a 12-step task analysis. Baseline measurements were also conducted using the videotaped scenes and used for comparison with the post-intervention assessment results. In this study, the researchers created a total of 96 videotaped scenarios, half of which depicted various types of abuse and half that did not. This pool of vignettes was used throughout the study, including the baseline assessments, the actual teaching intervention using *BST*, and for the post-test evaluation and generalization. Although the initial cost and effort required to create this videotaped library of scenarios would be intensive, the ongoing value for future training and assessments cannot be understated. This researcher contacted the researchers, and, although they were willing to supply sample scripts of the vignettes and the scoring tool, unfortunately the actual vignettes have been lost.

When evaluating skills learned and retained for the *ESCAPE* method of abuse protection education, Khemka et al. (2005) used control and intervention groups, and completed pre-testing and post-test/re-test assessments using several scales including: 1) *Knowledge of Abuse Concept Scale*; 2) *Empowerment Scale*; 3) *Stress Management Survey*; and 4) *The Self Decision-Making Scale*. All of the scales were developed by the researchers. Each was piloted with a group of people with disabilities and internal and external validity had been established with prior research. A Decision-Making Video scale was also employed for selecting and grouping participants but was not used in the assessment of interventions. The results indicated that there were significant differences

in levels of improvement between the control and intervention or treatment groups across all scales with the exception of the Stress Management Survey (Khemka et al., 2005).

This researcher also contacted Dr. Hickson, who developed the assessment tools, and unfortunately the scales were undergoing revisions and reevaluations and so could not be shared at the time of this project.

The general abuse programs *Keeping Safe* (Long & Holmes, 2001) and *Feel Safe* (Mazzucchelli, 2001) also used tools that were specifically developed by the researchers. The *Keeping Safe* program used an 18-item *Test of Knowledge About Keeping Safe* that tested knowledge about a variety of dangerous and less dangerous social and environmental situations (Long & Holmes, 2001). However, as noted earlier, the focus was on potential interactions with strangers and was not suitable for this project. The *Feel Safe* program used two scales developed by the researcher (the *Feel Safe Questionnaire* and the *Protective Behaviour Skills Evaluation*) and one other, more general but standardized tool, the *Comprehensive Quality of Life Scale* (4th Edition; Mazzucchelli, 2001). Together the three scales took less than an hour to complete, spanned abuse knowledge, personal boundaries, self-protection skills and self-esteem, and demonstrated both internal and external validity and reliability (Mazzucchelli, 2001). This researcher made numerous attempts to contact Dr. Mazzucchelli in Australia regarding the assessment tools but was unsuccessful.

When evaluating the children's computer-based safety skills program, Lee et al. (2001) used adapted tools from programs designed for children without disabilities. This included the *Children's Knowledge of Abuse Questionnaire (CKAQ)* (Tutty, 1997), and the *Personal Safety Questionnaire* (Wurtele, Gillispie, Currier, & Franklin, 1992). The

adapted tools demonstrated interrater reliability of $\kappa = 0.96$ (Lee et al., 2001). This researcher contacted Drs. Tutty and Wurtele and both gave permission to adapt their assessment tools for adults with intellectual disabilities. It is important to note that the *CKAQ-III* showed strong psychometric properties when tested with over 300 children from grades 1-6; including an internal consistency estimate of $\alpha = 0.87$ and test-retest reliability of 0.88 (Tutty, 1995). The *Personal Safety Questionnaire* and “*What if*” *Situation Test (WIST)* created by Dr. Wurtele are two of the most widely used assessment tools for child safety programs (Tutty, 1995; Wurtele et al., 1992). The *WIST* was tested with over 400 preschool children and meets the research requirements denoting it as a standardized test by demonstrating both internal reliability and test-retest reliability with correlation factors greater than 0.75 across all items (Wurtele, Hughes, & Owens, 1998).

Naturalistic evaluation. Finally, the concept of evaluation in a naturalistic setting identifies another, rather large, gap in the research to date. That is, does abuse protection education reduce victimization for people with disabilities? Some researchers have emphasized the importance of *in-situ* training and evaluations to determine if effective protection skills can be generalized outside the classroom setting (Egemo-Helm et al., 2007; Lumley et al., 1998; Miltenberger et al., 2009), and strongly advocate that this method is the only option that can actually determine if a person is safer. Of course, ethical considerations permeate these research discussions as the ramification of exposing adults with developmental disabilities to actual or even staged abuse lures is fraught with potential harm. Given the prevalence rates already cited, many people could be re-traumatized by *in-situ* assessments. It is interesting to note that Egemo-Helm et al.

(2007), who reported successful *in situ* generalization of skills, also reported that two out of the seven women in the study terminated their participation due to concerns with *in-situ* training, giving rise to the concern that the benefits of *in-situ* assessments or training may not outweigh the risks of harm. Again research is nascent on the ethical issues that should be considered to help guide researchers on the use of generalization probes and naturalistic testing (Bruder & Kroese, 2005). Given the lack of research to validate the ethical use of confederates, the evidence that to truly reflect naturalistic situations the abuse lure would need to be enacted by a trusted person versus a stranger, and the potential for re-victimization has yet to be investigated, generalization probes and *in-situ* abuse lures were excluded from this research study.

Purpose and Design of the Present Study

“Current evidence summarized on the effectiveness of interventions to prevent and respond to violence against persons with disabilities only offers limited guidance to practitioners, policy makers, and persons with disabilities themselves” (Mikton et al., 2014, p. 3219). This research study is intended to address some of the identified gaps in the literature by providing clinicians and educators in Ontario with an evaluated abuse prevention education program that meets the requirements of Regulation 299/10.

Originally, the *Preventing, Recognizing and Reporting Abuse* curriculum developed by the Abuse Prevention Education Committee of Waterloo Region was evaluated both at the time of the delivery to persons with an intellectual disability and during several Train-the-Trainer forums using an informal, action research approach. The results of the informal evaluation showed the curriculum to be flexible, transportable, easy to use, and capable of producing an engaging educational opportunity for both staff

and adults with development disabilities. As a result, it has been widely used in the Central West Region of Ontario to help agencies meet the Quality Assurance standards. However, it has not been empirically shown to improve protection skills amongst the participants.

In Ontario, some agencies rely on brochures, pamphlets or brief staff lead discussions about abuse in order to meet Quality Assurance Measures (QAM), Regulation 299/10 for abuse awareness, while others take a more pervasive and engaging approach to the abuse awareness. There is no single mandated technique to use nor is there any empirical data to guide agencies to determine effective teaching strategies to improve abuse awareness. This research enquiry attempted to remedy the problem of how much information constitutes abuse awareness by providing two variations of an educational treatment; an information-based curriculum and an informational and skill-based curriculum was offered to groups of randomized participants. Results were then compared to a control group.

As Regulation 299/10 applies to all adults in service, the current research study included consenting adult men and women with a range of intellectual impairments. In order to better understand the effectiveness of this program for its intended participants, this research examined whether the two educational approaches were equally effective for participants of different ages, gender, and cognitive abilities, thereby addressing some of the gaps in the current literature as well. Considering the realities faced by developmental service agencies in terms of providing mandatory education for the people they support, research studies such as this one, that evaluate knowledge and protection

skills across a spectrum of adults with developmental disabilities could quickly inform best practice.

Based on the current body of knowledge of abuse awareness interventions for adults with developmental disabilities, four hypotheses were established to help evaluate this particular abuse protection education program. The first hypothesis predicted that both educational groups should score higher on posttest and retest scores as compared to the control group. The second hypothesis predicted that those participants receiving 10 lessons that encompass the *IMB* model would score higher on all posttest and retest scores compared to those participants receiving the 3 information-based lessons. Results generated from Hypotheses I and II aim to answer research question one: *“is there a measurable benefit in abuse protection knowledge and skills for adults with developmental disabilities who receive an abuse protective educational program that encompasses an information, motivation and behavioural skills delivery model compared to an information-only based model?”*. The third hypothesis predicted that people with higher abilities would score higher on all posttest and retest measures as compared to those with *moderate* or *lower* abilities, regardless of which educational format they were provided. The fourth hypothesis suggested that there would not be any significant differences between people according to their gender or age. Results generated from testing Hypotheses III and IV, will help answer the second research question: *“do adults with developmental disabilities perform differently on measures of abuse protection knowledge and skills depending on their age, geographical location, gender, and developmental level of ability after experiencing one or the other program models?”*.

Assessment of abuse protection knowledge was measured using the *Abuse Protection Concept Questionnaire (APCQ)* and abuse protection skills were measured using the *Abuse Protection Decision-Making Task-Analysis Checklist (APDTC)*. These data collection tools were modeled on the previously cited research questionnaires and checklists. As the intent of Ontario's legislation is to provide education and reduce risks of trauma, this research project excluded *in-situ* training that involves confederates and abuse lures outside the classroom role-play format. The measurement tools used have the potential to fill the gap for standardized test instruments. The strengths and limitations of the *APCQ* and the *APDTC* can help inform the third research question: *Is there preliminary evidence that the APCQ and the APDTC are valid and reliable measurement instruments?*

Methods

The goal of this research project was to evaluate an abuse prevention education program being used in parts of Southern Ontario to teach adults with developmental disabilities how to prevent, recognize and report all forms of abuse.

Overview. Evaluation of the program involved both a randomized control study and a case study comparison. This research compared scores on pretest, posttest and retests for participants who were stratified by their level of ability and then randomly divided into one of three educational treatment groups. The three groups were an Information Only (IO) group who received three information-based lessons, an Information and Behaviours Skills (IBS) group who received 10 information and behavioural skill-based lessons, and a control group who did not receive abuse prevention education². Within one of the Community Living Agencies who participated in the research, there was a group of people located in two different rural settings who attended the same day program and wanted to participate in the research but could not travel to the urban centre to join the randomized participants. Given this limitation and that their numbers were too small to divide into different groups, this group of participants formed the basis for a case study group. Case study participants were given an ability category rank using the same tool as the randomized participants, underwent pretesting/posttesting and retesting but everyone was educated using the complete 10-lesson curriculum. Case study participants acted as an authentic ecological group that would form naturally at the

² Participants in the IO and C group were given an opportunity to participate in all 10 lessons at the end of the study

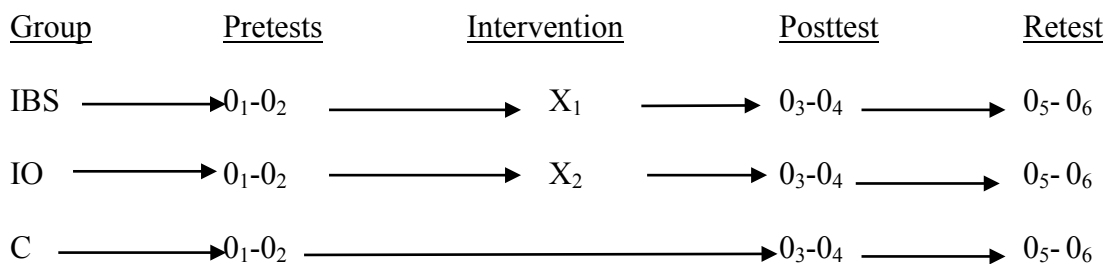
hosting agency for any group training opportunity. Their posttest and retest results were compared to a similar group of participants in the randomized study.

This research study was the primary investigator's thesis work for a Master's in Education at Wilfrid Laurier University. However, it was also a collaborative project that involved Developmental Services Worker Students from Fanshawe College, who volunteered as research assistants in lieu of a typical practicum and so will include details about their role as data collectors and educational facilitators.

Research design. The research design is a quasi-experiment with nonequivalent group pretest-posttest with multiple probe testing. Using pre- and post-testing and stability evaluation (test-retest), comparisons about knowledge and skill acquisition and retention were made amongst the three groups of participants and across other independent variables such as gender, age and cognitive ability.

Figure 1

Research Design



Hypotheses. The main hypothesis of the research was that those adults provided with either abuse education program would score higher than those adults in the control group on posttest and retest scores (Hypothesis I). It was also hypothesized that those adults provided with a broader range of information, motivational, and behavioural skills necessary to recognize and report abuse would score higher on the posttest and follow-up

retention tests than either the control group or the group that received the truncated, information-based only lessons (Hypothesis II). Results from these hypotheses could inform practice in terms of what constitutes education sufficient to ensure abuse awareness and answer the first research question: *“is there a measurable benefit in abuse protection knowledge and skills for adults with developmental disabilities who receive an abuse protective educational program that encompasses an information, motivation and behavioural skills delivery model compared to an information-only based model?”*.

It was also hypothesized that participants with mild intellectual disabilities would perform better across all groups when provided either educational program compared to those with moderate or severe intellectual disabilities (Hypothesis III). Finally, it was anticipated that there would be no difference between men and women in terms of posttest and retest scores of similar intellectual capabilities or between people of different ages (Hypothesis IV). Results from testing Hypotheses III and IV will help inform research question two: *“do adults with developmental disabilities perform differently on measures of abuse protection knowledge and skills depending on their age, geographical location, gender, and developmental level of ability after experiencing one or the other program models?”*. Although there is no specific hypothesis associated with the examination of the strengths and limitations of the *APCQ* and the *APDTC*, a critical analysis of the two test instruments will address research question three: *“is there preliminary evidence that the APCQ and the APDTC are valid and reliable measurement instruments?”*.

Participants

As Regulation 299/10 applies only to adults receiving supports and services, this research focused on abuse protection skills for adults with developmental disabilities. Two Community Living Ontario agencies participated in the research. Both agencies are registered charitable organizations that also receive funding from the Ministry of Community and Social Services and are dedicated to providing residential, respite, vocational and day program options for people with developmental disabilities. Each agency has its own mission, values and guiding principles and is governed by its own Board of Directors and Senior Executives. However, both agencies are required to conform to the Quality Assurance Measures outlined in Regulation 299/10. A total of 74 participants were recruited for the project from these two Community Living Ontario organizations. Most of these ($n = 61$) participated in the randomized controlled study, while a small group ($n = 13$) who lived in more rural and less accessible parts of Southern Ontario, served as participants in the case study. The first Community Living agency (CL #1) had all participants ($n = 32$) involved in the randomized control study, while the second Community Living agency (CL #2) had 29 participants in the randomized study but also hosted the case study participants ($n = 13$). The two agencies were not geographically close enough to allow participants to be interspersed with each other for one larger sample size. Therefore, sessions were held at each location. Although one coherent larger sample would have been preferable, conducting the research twice afforded the opportunity to compare and contrast the results between similar groups of participants supported by two distinct agencies. The sample size initially included 81 people but due to scheduling conflicts, seven people had to withdraw. Baseline data

collected for these people were destroyed. Table 1 summarizes how the participants were randomizing to a treatment group after being stratified by their level of ability.

Table 1

Randomization of participants to treatment groups

	CL #1			CL#2			Total
	C	IO	IBS	C	IO	IBS	
Initial participants							
Lower	3	3	4	2	2	2	16
Moderate	2	3	3	2	2	3	15
Higher	6	6	6	6	6	7	37
		(36)			(32)		(68)
Case study	0	0	0	0	0	13	13
Total n=							81
Final configuration after withdrawals							
Lower	3	3	3	2	2	2	15
Moderate	2	3	3	2	2	1	13
Higher	5	4	6	5	6	7	33
		(32)			(29)		(61)
Case study	0	0	0	0	0	13	13
Total n=							74

Note. Developmental Ability = level of cognitive ability as described in instrument section page 53, C= control group, IO = Information only group, IBS = Information and Behaviour Skills group, CL#1= Community Living Agency #1, CL#2 = Community Living Agency #2

Many agencies in Ontario would typically provide mandatory abuse awareness in natural forming groups of adults who work, live or socialize together rather than randomizing participants to a group based on their level of ability. The case study participants from CL#2 were provided all 10 lessons, and therefore offered an opportunity to explore group performance in an educational program as it would typically occur in an agency setting. Although the lesson delivery was the same for the case study participants as it was for participants in the IBS group, the participants in the case study group lived or worked together which offered different interpersonal dynamics than participants in the randomized study who could have been placed in a group with other participants they did not know or had little in common with. As well, given the more

remote location of the case study participants, none of them had been involved in a formal abuse education program before. Results from the case study participants were compared to a similar group of participants in the randomized study.

The participants in the study ranged in age from 18 years to more than 65 years of age. Both men and women were equally represented in the total 74 participants, although given that the majority of participants in the case study group were women, group divisions resulted in slightly more men than women in the randomized control. Table 2 summarizes the distribution of gender amongst the treatment groups.

Table 2

Participant Gender Distribution by Developmental Ability, Treatment Allocation and Geographical Location

		Developmental Ability Category			Treatment group			Total
		Higher	Moderate	Lower	C	IO	IBS	
CL#1	Men	5	6	6	3	7	7	17
	Women	10	2	3	7	3	5	15
CL#2	Men	10	4	4	5	7	6	18
	Women	8	1	2	4	3	4	11
Randomized <i>n</i>		33	13	15	19	20	22	61
Case Study								
	Men	5	0	0	0	0	5	5
	Women	8	0	0	0	0	8	8
Case study <i>n</i>		13	0	0	0	0	13	13
Total		46	13	15	19	20	35	74

Note. Developmental Ability = level of cognitive ability as described in instrument section page 53, C= control group, IO = Information only group, IBS = Information and Behaviour Skills group, CL#1= Community Living Agency #1, CL#2 = Community Living Agency #2

All participants had confirmed developmental disabilities, although specific IQ data were not collected because many of the original psychometric tests for participants had long since been archived. Instead, a level of ability was calculated using the baseline data collected about their individual skills. In the final sample of 74 participants, 20% (n=15) were considered to have *lower ability*, 18% (n=13) people were considered to have *moderate ability*, and 62% (n= 46) were assigned to the *higher* ability category.

Since Regulation 299/10 has been in effect for three years, at the start of the data collection, all participants had received some form of abuse awareness education already. The amount of education varied from being read a brochure to attending a structured peer or staff-led workshop. It was not possible to gather accurate and complete data about previous abuse protection education. However, since this study included an assessment via a pretest of prior knowledge, both mean posttest and retest scores were examined as part of the data analysis, as well as changes in score relative to the pretest scores.

Facilitators. Six Developmental Service Worker (DSW) students (four women and two men) from Fanshawe College volunteered to participate in the project as research assistants in lieu of a typical 15-week field placement opportunity. These students delivered the curriculum to the research participants and conducted the testing. The student research assistants worked in pairs in order to support each other in case of abuse disclosures, and to provide male/female teaching teams as much as possible. The same pairs of students taught the same lessons for all research participants. For example, one pair provided the non-abuse social skill training to the control group, while another pair provided the three information lessons to both the IO group, IBS group and case study group. The final pair taught all seven motivation and behavioural skill-based lessons to

the IBS group and case study participants. Having fixed teaching teams allowed for consistency in training across all locations. Since the primary researcher had been part of the team that developed the program, having a team of assistants to collect the data also reduced the potential for researcher bias. Finally, as the study involved a vulnerable population and the likelihood of abuse disclosures was high, students were also paired for as many of the pretests/posttest and retests as possible.

The six research assistants spent two weeks learning how to use both the test instruments and how to deliver the program prior to working with the research participants. They practiced their teaching skills on each other and then facilitated the program training with a newer cohort of DSW students during a lecture on abuse education for adults with developmental disabilities. The research assistants practiced the delivery and scoring of both measurement tools until the primary researcher was confident that a high degree of proficiency had been achieved. The two-week training and preparation time, along with the continuity in lesson facilitators, contributed significantly to the treatment fidelity once the research began.

Instruments

Baseline data collection. As mentioned previously, the actual clinical diagnosis relating to the severity of the developmental disability was not available for every participant. As well there were many incidents when the person with a developmental disability was completing his/her own baseline data form and the researcher wanted to make the data forms as accessible as possible. (See Appendix C for the data collection form used in this research.) Therefore, for the purposes of this research, the baseline data that contributed to the participant's classification of ability were items on a checklist that

included the amount of daily support required; verbal, written and reading communication skills; and knowledge of the participant's level of cognitive functioning (mild, moderate or severe developmental disability). Three out of the five scoring categories were based on communication skills. Although a person may not need extensive communication to recognize or even stop abuse, good expressive language is an advantage for a potential victim to report abuse. Therefore, for the purposes of this study it was important to reflect communication skills in the overall categories of *lower* ability, *moderate* ability and *higher* ability. The highest possible score from the baseline data was 17 and the lowest possible score was 5. Participants in the research ranged in score on the baseline data from 6 to 17 or when expressed as a percentage from 35% to 100%. In the general population, 85% of people with a confirmed developmental disability are diagnosed as having mild cognitive deficits, 10% have a moderate diagnosis, and 4% are considered severe (Sadock, Sadock, Ruiz, & Kaplan, 2009). Given this information, it would be less reflective of the capabilities of people with developmental disabilities to evenly split the baseline score into three equal categories of *lower*, *moderate*, or *higher*. However, it is also important to consider that agencies such as CL#1 and CL#2 typically support adults who have more complex needs or are not able to live or work independently, which is not necessarily typical of the total population. In this data set, the majority of people (62%) had a baseline score of 12 or greater, 18 % scored between 10 and 11, and 20% scored less than 9 on the baseline scale. Therefore, based on the trends reported for the general population, and considering the baseline data collected, the participants were stratified as follows:

- Total Score 12-17 ($\geq 70\%$) as *higher* ability,

- Total score 10 or 11 (55-69%) as *moderate* ability, and
- Total score 6-9 (less than 55%) as *lower* ability.³

Measurement scales. Two measures, the *Abuse Protection Concept Questionnaire (APCQ)* and *Abuse Protection Decision-Making and Task-Analysis Checklist (APDTC)*, were used to evaluate abuse protection knowledge and abuse protection skills. The basis for these two test instruments has been cited in the literature review, but each tool was adapted for use in this research study. A prototype of the two instruments was sent to experts from the Abuse Prevention Education Committee of Waterloo Region, as well as other clinicians and students in the developmental services field. Revisions were made to the instruments based on their suggestions. Comments included consistency in wording the YES/NO attitude questions and minor revisions to the abuse vignettes to ensure that the stories included both genders as victims and abusers. The *APCQ* and *APDTC* were then vetted with a group of self-advocates from one of the participating agencies. This group generously provided valuable input regarding additional wording of questions for appropriate adult versus child-like content, and also provided an opportunity to conduct a preliminary interrater reliability analysis ($r = 0.86$). Further revisions were made as a result of the feedback.

APCQ. The *Abuse Protection Concept Questionnaire (APCQ)* was used to capture a participant's general knowledge and attitudes about the various types of abuse and is included in Appendix D for reference. The questionnaire included three subscales and took 10-15 minutes to complete.

³ The described level of ability should not be mistaken for a clinical diagnosis

The first subscale collected information about participant's general knowledge about the different types of abuse. It comprised five open-ended (unstructured) questions asking the participant to define sexual, physical, emotional/verbal, and financial abuse, and neglect. The participant could score up to 15 points if they correctly communicated the five definitions of abuse as outlined by Regulation 299/10. The quality of each answer could range from 0 to 3 points. As an example, when asked to define sexual assault if a participant did not know or responded with just a word or phrase like 'touching' or 'kissing', they would receive a score of 0. If they responded with a word or phrase like inappropriate touch or "when someone touches me there" (and points to private body part), they would receive 1 point. If they included additional information that confirmed the lack of consent then they scored 2 points. If the definition also included being forced to look or touch someone else's private body parts then they would score 3 points.

The second subscale of the *APCQ* was similar to the first subscale but presented structured questions about abuse definitions, thereby reducing the reliance on the participant's level of vocabulary. A definition of abuse was read to participants and then participants were asked to identify the correct type of abuse. Participants had to use accurate terminology to be awarded the single point. For example, when a person was read the definition of physical abuse and then responded with 'fighting' as the type of abuse, they could not be awarded the point, since 'fighting' is suggestive of a mutual disagreement. However, if participants responded with 'robbery' or 'stealing' after being read the definition of financial abuse a point was awarded as intent to do harm was more accurately implied in that response. There were a total of five definitions (sexual,

physical, emotional/verbal and financial abuse and neglect) and so the total possible score of the structured questions of this part of the second subscale was 5.

To eliminate the need for expressive vocabulary, the participants were then shown five pictures depicting the different types of abuse. Participants were asked to point to the picture that most accurately illustrated each type of abuse. Each correct response was awarded a point for a total of five. Therefore, the total possible score for subscale 2 (structured definitions and non-verbal knowledge questions) was 10.

The final subscale within the *APCQ* was used to assess attitudes about authority, power, privacy and boundaries. This subscale was adapted for adult use from the *Children's Knowledge of Abuse-III* (L. Tutty, 1995) and *Personal Safety Questionnaire* (Wurtele et al., 1992). Permission to use both test instruments can be found in Appendices E and F. It was a 20-item (three element, forced choice) scale and incorporated the option to use symbols to communicate 'yes', 'no' or 'don't know' for people who needed a visual prompt to choose an answer. For example, participants would score a single point if they responded with 'yes' to the question 'is it ok to say YES if you like the kisses or touches that your sweetheart (boyfriend/girlfriend) gives you?' and 0 if they answered 'don't know' or 'no'. An example of an authority question was 'if you did something wrong or broke a rule, is it ok for a staff/relative to refuse to give you supper?'. Respondents would receive a score of 1 point for saying 'no' and 0 for responding with 'yes' or 'don't know'. The total possible score on this subscale was 20. During analysis the three subscales were examined individually as well as combined with equal weighting of knowledge and attitude to comprise the *APCQ* total (expressed as a percentage).

APDTC. The *Abuse Protection Decision-Making and Task-Analysis Checklist* (*APDTC*) was used to assess the skills required to recognize and report abuse and can be found in Appendix G for reference purposes. It was adapted from the “*What If*” *Situations Test* (Wurtele et al., 1998) and the thesis work of Jessica Bollman (Bollman & Davis, 2009). Permission to use both test instruments can be found in Appendices F and H. During testing, participants were read a vignette and then shown a picture that added visual context to the story. Five of the vignettes involved abusive situations, while two were benign or non-abusive. The participants were scored on their ability to identify if abuse had taken place, and if they could describe the appropriate action to take. Important scoring criteria included removing themselves or the offender from the situation, identifying a trustworthy person to talk to about the situation, and then being able to describe the who, what, when and where of the scenario to the trusted person. Each abuse vignette had a total possible score of 10 and each non-abuse 2, for an overall score for the *APDTC* of 54. Participants could score 1 point for correctly identifying the non-abuse vignettes as either an accident or a consenting relationship and a second point for describing why it was an accident or a consenting relationship. The non-abuse scores were then multiplied by 5 to be equivalent in score to the abuse vignettes, which changed the total possible score to 70. The *APDTC* is an equal weighting of six vignettes expressed as a percentage.

The total pre/post and retest scores are an equal weighting of the *APCQ* knowledge subscale, the *APCQ* attitude subscale and the *APDTC* expressed as a percentage. Research supports the need to for adults with developmental disabilities to acquire abuse protection knowledge, skills and attitude (being able to reason about

personal boundaries and authority) as are all important to recognize, prevent and report abuse (Bruder & Kroese, 2005, Lee et al., 2001, Khemka et al., 2005)

Participant feedback. To help evaluate the classroom context and determine if adults with developmental disabilities enjoyed the educational elements used in all 10 lessons, participants completed a Likert-type survey. See Appendix I for the participant feedback survey. The survey asked the participants to circle “yes”, “no” or “so-so” for questions about overall enjoyment, ability to understand the content, helpfulness of material, novel learning opportunities and usefulness of games and activities as teaching tools.

Procedures

As discussed in the introduction, the participants for this study were from two agencies, CL#1 and CL#2. The procedure detailed below was consistent at both locations.

Ethics and consent. As the participants involved a vulnerable group of people, the researcher obtained two ethics approvals, the first through Wilfrid Laurier University (REB # 3958) and the second through Fanshawe College (Protocol # 14-10-14-1). See Appendix J for copies of both approvals and Appendix K for the *Tri-Council Policy Statement* human research ethics certificates for the primary researcher and six research assistants. Prior to agreeing to participate in the research, all potential candidates attended group or individual recruitment information sessions. Ethics approved consent forms were provided and read to any participant who was unable to read them independently. Those individuals wishing to participate were asked to sign the consent form or had their substitute decision maker sign on their behalf. All information sheets and the consent forms were written in plain language to allow more independent and

informed consent by adults with developmental disabilities. The consent form is included in Appendix L and Appendix M includes the plain language information sheet provided to all potential participants.

The option to withdraw or decline participation in any of the activities was always reviewed at the beginning of each group lesson, thereby confirming both initial consent and ongoing participant assent. No one withdrew from the research because they no longer wanted to participate. Research participants were given a coded number to identify them on all test instruments and the master list and coded tests were stored separately to maintain participant anonymity.

Intervention activities. Once an overall ability score was determined, participants in the randomized control study ($n = 61$) were stratified by their ability and then randomly assigned to one of the three treatment groups: control group, Information Only group (IO) and Information and Behavioural Skills group (IBS). Case study participants all received the full curriculum. Participants in the control group and the IO groups were offered the full curriculum at each location once retests were completed.

Prior to testing and treatment at each location, the agency was supplied with an information flyer reminding participants, staff and family that research would be taking place and kindly requested that the people participating in the research refrain from formal abuse prevention education until the completion of the study. Based on feedback from the ethics committee, all stakeholders were also reminded that neither the participants nor the people that support them should assume safety has been achieved because participants were receiving education about abuse prevention. A copy of this information flyer is attached for reference in Appendix N.

Pretesting using the *APCQ and APDTC* was conducted with participants in all three treatment groups less than 1 week before educational intervention. Discussion and feedback were not permitted during the pretest assessments. Educational treatment intervention was completed from Monday to Thursday of the following week.

The abuse protection program used for the research was developed by the Abuse Prevention Education Committee of Waterloo Region (2011) and is titled *Preventing, Recognizing and Reporting Abuse*. The curriculum consists of 10 information and skill-based lessons. The curriculum introduction includes a brief summary of each lesson and is included in Appendix B for reference purposes.

Soon after its original debut in 2011, local agencies using the program requested guidance from the authors about what lessons were most essential for knowledge transfer. The request was made because there were situations when time, resources, facilitators and/or a willingness of adults supported to participate in the mandatory training were limited, yet agencies still wanted to meet the regulatory standards. As a result, the authors identified three essential knowledge-based lessons that would meet QAM standards for abuse awareness. Given that one of the ongoing challenges facing agencies in Ontario is determining the amount of information that constitutes abuse awareness, these lessons were chosen for inclusion in the “information only” training session. This approach allowed for a comparison between research participants who attended the three essential information-based lessons and those who received the entire 10-lesson program, which included seven additional skill-based lessons focused on assertiveness, motivation, decision-making and an opportunity to practice protection skills.

Participants in the IO group received the truncated curriculum (Treatment Condition X₂), which consisted of three lessons in six hours. These three information-based lessons were:

1. Abuse definitions,
2. Understanding boundaries, and
3. Safety planning.

The lessons were completed the same week as the IBS group and control group and spanned two days on Tuesdays and Wednesdays. Although the lessons were designed to be taught in as little as three hours, the researcher wanted to ensure there was ample time for questions and that participants in this group had a second day to review lessons. Both the IO and the IBS group spent the same amount of time on these three lessons. However, the IO group had extra ice breaker activities and non abuse related education to fill the time difference on the first day so that they could review abuse definitions on their second day to more closely mirror the lesson delivery time of the IBS group.

Participants in the IBS group received the full (Treatment Condition X₁), which consisted of the 3 information-based lessons, and seven more skills-based lessons. The additional 7 skill and decision-making lessons were:

1. Identifying feelings and touches
2. Assertion skills
3. Rights and responsibilities
4. Recognizing abusive situations
5. Decision-making
6. Skill development through role-play and forum theatre

7. Discriminating between abuse and non-abusive situations.

The 10 lessons were provided over 12 hours spanning Monday through Thursday mornings. Although the lessons were designed to be taught in as little as 6 hours, the researcher wanted to ensure that there was ample time for questions, review and rehearsal (see Appendix B for a brief description of each lesson and the desired learning outcomes).

Participants in the control group did not receive any elements of the program during the study. To minimize confounding variables, the control group was offered a different social skill learning opportunity. This included a 3-hour lesson on Mondays of the same week as the other two treatment groups. The topics focused on team-building skills with kinesthetic activities to solidify learning outcomes.

Both the IO group and the control group participants were given an opportunity to participate in the entire 10-lesson program once all the data were collected.

Post-intervention activities. Posttesting with the *APCQ* and *APDTC* was completed within 5-9 days after the end of their treatment intervention. Discussion and feedback were not permitted during this first posttest assessment. Participants in the IBS were given the option to complete a feedback evaluation form.

Follow-up retention retesting was completed with all three groups 33-37 days following the end of their treatment intervention. Discussion and feedback were not permitted during the second posttest evaluation. However, upon completion of the final testing, research assistants took the opportunity to review any serious errors or gaps in knowledge with each participant.

Once retesting was completed at each location, the agency collaborated with the research team to deliver the entire 10-lesson program to any research participant who had

been randomly assigned to the control or information only group. Not only did this meet the researcher's ethical commitment to offer the full program to all the participants, but it also allowed an opportunity for staff from the hosting agency to join the education and learn how to deliver the curriculum themselves. Ten copies of the curriculum were left with each agency so they can use it again for subsequent abuse awareness education. Participants attending the post-intervention abuse education program were also given the opportunity to complete the feedback evaluation form at this time.

Procedure and materials for case study. The procedure used for the case study group differed slightly from that previously described. All participants still underwent pretesting no more than 1 week prior to education treatment and the participants received the full program over 12 hours. However, given the distance and the difficulty in coordinating schedules, the treatment duration was reduced to 2 longer days. Posttesting was again completed within one week and retesting within 5 weeks. Some of the case study participants ($n=4$) were not available for retesting. The participants in the case study requested involvement in the research project but could not travel to the urban centres to be included in the randomized study. The data collected from participants in this sample of convenience is reflective of how abuse awareness would typically occur in a Community Living Ontario agency and allows for comparison between similar participants in the controlled study to those in this more naturalistic setting.

Summary. An evaluation of an abuse education program that used the curriculum entitled *Preventing, Recognizing and Reporting Abuse* by the *Abuse Prevention Education Committee of Waterloo Region* was conducted with 74 adults with developmental disabilities. Participants completed baseline data to determine their

overall level of ability and then 61 participants were stratified by the designated level of ability and randomized to one of three educational treatment groups: the IO group received three information-based lessons; the IBS group received 10 information and skill-based lessons; and the control group functioned as a baseline comparison and received a non-abuse related social skill education. Abuse protection knowledge was measured using the *APCQ* and abuse protection skills were measured using the *APDTC*. A smaller sample ($n = 13$) served as a case study group and received all 10 lessons in a format more typical of naturalistic education in the community. The research met all the moral and ethical guidelines necessary for working with a vulnerable population.

Results

The results chapter is divided into five main sections. The first section details the statistical analyses on the raw pretest data, which determined outliers, measurement errors and distribution patterns to determine if parametric statistical analysis could be used. In addition, the first section includes evidence of pretest group equivalency and examines instrument reliability. The second section examines the main effect of treatment group on the posttest and retest scores to test hypotheses I and II. Hypothesis I predicts that participants in either educational treatment group will score higher than participants in the control group, while hypothesis II predicts that participants in the IBS group will score higher on posttest and retest as compared to the participants in the IO group. The third section examines the effect of moderating variables to test hypotheses III and IV. Hypothesis III predicts higher posttest and retest scores for participants in the *higher* category of ability as compared to those in the *moderate* or *lower* category of ability, while hypothesis IV predicts that gender and age will not influence posttest or retest scores. The fourth section includes analyses of the case study results and the final section highlights the participant feedback surveys and provides an overall summary.

Participants in the randomized study were stratified by their ability category and then randomized into one of the three treatment groups IBS, IO and control. The independent treatment variables were the three variations in the teaching interventions (control – no interventions, X_1 – information only, and X_2 - information and behaviour skills). Data were tabulated and analyzed using SPSS software version 22 for MAC.

The analyses evaluated the treatment effect on *APCQ* and *APDTC* scores when scales were combined, viewed individually or broken down into specific subscale effects

(see instruments for details of these scales). Pretest, posttest and retest totals are a combination of the two *APCQ* subscales (reflecting knowledge and attitudes about abuse) and the *APDTC* subscale (reflecting the skills necessary to recognize and report abuse). For test totals, each scale was equally weighted in the calculation to reflect the importance of each set of skills to repel and report abuse. Analysis also included between group comparison of the changes in all scores from pretest to posttest and pretest to retest.

Results from Hypotheses I and II, address the first research question, *“is there a measurable benefit in abuse protection knowledge and skills for adults with developmental disabilities who receive an abuse protective educational program that encompasses an information, motivation and behavioural skills delivery model compared to an information-only based model?”*. Results from Hypotheses III and IV address the second research question, *“do adults with developmental disabilities perform differently on measures of abuse protection knowledge and skills depending on their age, geographical location, gender, and developmental level of ability after experiencing one or the other program models?”*. The overall evaluation of this abuse protection program will consider the results of all four hypotheses with consideration also being given to the curriculum delivery methods, classroom context, facilitator effectiveness and participant satisfaction.

The strengths and limitations of the *APCQ* and the *APDTC* to measure abuse protection knowledge and skill inform the third research question, *“what preliminary evidence is there that the APCQ and the APDTC are valid and reliable measurement instruments?”*.

Pretest Data Analysis

During the initial data assessment, the decision was made to exclude the first *APCQ* subscale that involved the unstructured definition questions. Even on posttest scores, 50% ($n=37$) of participants scored 0 on the subscale and 88% ($n=65$) scored 5 or less, suggesting that the unstructured questions were simply too challenging for the participants. Therefore, the *APCQ* became a total of just two subscales: abuse knowledge that included the structured questions and picture identification (verbal and nonverbal), and the 20-item abuse attitude scale. As well, one of the non-abuse vignettes was discarded from *APDTC* reducing the total score to 60. The non-abuse vignettes included accidental injury and a consenting romantic relationship but the response of the participants displayed a positively skewed distribution pattern because most people identified them inaccurately as abuse. The accidental injury vignette also failed to show homogeneity of variance across treatment groups ($F= 6.961, p= .002$) and so that question was removed from the test instrument. The non-abuse vignettes were also rescored so that the answer ranged from 0 to 2 instead of -1 to 2 and then multiplied by 5 to give them similar weight to the abusive vignettes.

Total scores were recalculated before examining the data for outliers. *APCQ* total is an equal weighting of the two subscales of knowledge and attitude expressed as a percentage. The *APDTC* is an equal weighting of six vignettes expressed as a percentage. The total pre/post and retest scores are an equal weighting of the *APCQ* knowledge subscale, the *APCQ* attitude subscale and the *APDTC* expressed as a percentage.

Instrument reliability. Of the 213 pretest/posttests and retests completed, 168 (79%) included interrater observations. Cohen's Kappa (κ) was used to determine if

there was agreement between the interviewer and the rater. Results indicated that the *APCQ* demonstrated good agreement ($\kappa = .651, p = .0005$). The *APDTC* produced a coefficient of $\kappa = .363, p = .0005$, suggesting fair agreement between the interviewer and the rater. A Pearson correlation was also calculated to assess interrater reliability. Results suggest a high degree of interrater reliability (*APCQ* and the *APDTC* produced the same coefficient of $r = .983, p = .0005$).

For assessment of internal validity, both measures were examined using the control group ($n = 16$) pretest, posttest and retest scores in order to compare stability. Both the *APCQ* and *APDTC* demonstrated a high degree of internal stability (Cronbach's $\alpha = .958$ and $\alpha = .969$ respectively). Paired t -tests were also conducted with the control group. For the *APCQ* there was a small mean difference of 3.38 (± 11.72) from pretest to posttest which was not statistically significant, $t(16) = 1.190, p = .252$, and a mean difference of 3.39, (± 2.79), from pretest to retest which was also non-significant, $t(13) = 1.215, p = .246$. For the *APDTC*, there was an even smaller mean difference of -1.86 (± 6.77), $t(16) = -1.135, p = .273$) from pretest to posttest. However, there was a small increase from pretest to retest of 4.4, (± 1.19), which was statistically significant $t(13) = 3.390, p = .005$. Both set of results are indicative of strong internal validity for the *APCQ* and moderate validity for the *APDTC*.

The Effect of Location. Prior to conducting any further statistical analysis the results from the two different Community Living Agencies were examined to determine equivalency so that the data could be pooled into one larger sample size. Table 3 compares the mean pretest, posttest and retest scores for the two hosting Community Living Agencies. Initially, location was not identified as a potential moderating factor

and was therefore not included in Hypothesis IV, as it was anticipated that all the participants would be drawn from one organization. However, since participants were drawn from two organizations, treatment interventions were replicated and therefore, evaluation of potential differences between the locations allows an initial assessment of educational treatment fidelity. Using a three-way mixed ANOVA with time as the within group variable and treatment group and location as the two independent variables, the data were assessed for possible interactions. Each of the 24 cells of the mixed ANOVA included 6 or more participants, were normally distributed as assessed by the Shapiro-Wilk test for normality ($p > .05$) and were free of outliers at the pretest interval.

Table 3

Mean (Standard Deviation) Total Pretest/Posttest and Retest Scores (%) Comparing Location

	Pretest		Posttest		Retest	
	CL#1	CL#2	CL#1	CL#2	CL#1	CL#2
n	10	7	10	7	8	6
Control	43.50 (15.22)	32.30 (10.44)	43.28 (16.96)	36.59 (17.11)	44.24 (15.81)	39.17 (9.91)
n	9	10	9	10	9	10
IO	42.65 (21.03)	42.11 (12.36)	47.28 (24.26)	47.78 (19.08)	48.21 (22.55)	42.17 (21.29)
n	11	10	11	10	10	9
IBS	34.14 (10.81)	39.00 (13.0)	42.68 (14.56)	48.28 (22.68)	44.44 (13.92)	41.36 (24.36)

Note. IO = Information only group, IBS = Information and Behaviour Skills group, CL#1= Community Living Agency #1, CL#2 = Community Living Agency #2

Three additional assumptions were assessed, and it was determined that there was homogeneity of variance for all time intervals as assessed by the Levene test ($p > .05$), there was homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .578$, but sphericity was violated as tested by *Mauchly's Test for*

Sphericity $\chi^2(2) = 7.869, p = .020$. Because sphericity was violated, the Greenhouse-Geisser correction was applied to interpret potential interactions. There was no statistically significant interaction between pretest, posttest and retest total scores and treatment group and location, $F(3.45, 79.28) = .808, p = .522$.

Interactions were also assessed for the *APCQ* and the *APDTC* separately. For *APCQ* test total there was homogeneity of variance for all time intervals as assessed by the Levene test ($p > .05$), there was homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .776$, and sphericity was not violated as tested by *Mauchly's Test for Sphericity*, $\chi^2(2) = 4.694, p = .096$. There was no statistically significant interaction between *APCQ* pretest, posttest and retest scores and treatment group or location, $F(4, 92) = 1.402, p = .240$. For the *APDTC*, homogeneity of variance was violated for pretest scores ($p = .07$) but not for posttest ($p = .237$) or retest scores ($p = .082$) as assessed by the Levene test. There was homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .273$, and sphericity was not violated as tested by *Mauchly's Test for Sphericity*, $\chi^2(2) = 6.001, p = .051$. Similar to the *APCQ* and total scores, there was no statistically significant interaction between *APDTC* pretest, posttest and retest scores and treatment group across the two locations, $F(4, 92) = .326, p = .860$.

It is noteworthy that CL#1 had previously met QAM legislation by developing group training with accompanying workbooks for the people they support, while CL#2 had distributed pamphlets or brochures to residents instead. Although not statistically significant, generally, CL#2 had slightly lower mean pretest and retest scores compared to CL#1 but not posttest scores, possibly showing the longer-term benefits of repeated

exposure to the information. Overall, the non-significant differences between the two locations at pretest, posttest and retest provide strong support for the effectiveness of the methods employed in the study to maintain treatment fidelity. The results of these analyses also allow the data sets to be pooled into one larger sample.

Support for use of parametric statistics. Prior to testing the hypotheses, the data was examined for outliers and distribution patterns (deviations from normality and homogeneity of variance) to determine if parametric measures could be used. As noted earlier, one subscale of the *APCQ* and one vignette from the *APDTC* were deleted from the test totals because most of the participants answered them incorrectly, resulting in a positively skewed distribution pattern. Total scores were recalculated with the *APCQ* total being an equal weighting of the two subscales of knowledge and attitude, and total pre/post and retest scores being an equal weighting of the *APCQ* knowledge, *APCQ* attitude and *APDTC* at each test interval. These final scores were subsequently examined for outliers.

Outliers were identified by visual inspection of boxplots and defined as those values greater than 1.5 box-lengths from edge of the box. Based on this criterion, there were three outliers with the pretest totals and the *APDTC* subscale. In each case, the participant was a woman, one in each of the three treatment groups. The women from the IO and IBS groups not only performed well above the mean on pretests but the facilitators noted that they performed exceptionally well in the classroom compared to the men. All three outliers were therefore removed from the data set.

One additional outlier was removed as a result of the analysis of the posttest scores. In this case, the participant was male in the control group. His performance on

posttest totals were assessed as a value greater than 1.5 box-lengths from the edge of the boxplot on the mean *APDTC* and the change in his *APDTC* score from pretest to posttest. When asked about his atypical improvement in score, he indicated that he helped complete homework assignments with his romantic partner, who was in the full treatment group, thereby contaminating the control group results. Although his enthusiasm was commendable and the interaction provides a valuable insight, his results were removed for the quantitative element of the study.

The randomized control group study was reduced to 57 participants as a result of outlier removal. Table 4 is a summary of the characteristics of participants in each of the three treatment groups once outliers were removed. Table 4 also includes the pretest total scores for each of the three treatment groups.

With the outliers removed, the total pretest scores were assessed for deviations from normality using the Shapiro-Wilk's test for normality. Total pretest scores for each of the three treatment groups were normally distributed (control group: $p = .340$; IO: $p = .329$; and IBS; $p = .210$).

When the two test instruments were assessed separately for deviations from normality, *APCQ* was normally distributed for all three treatment groups ($p > .05$), while the *APDTC* was normally distributed only for the control group ($p = .827$) and IBS ($p = .063$). The IO group failed to meet the criteria of a normal distribution ($p = .044$). When the two subscales (Knowledge and Attitude) of the *APCQ* were assessed using the Shapiro-Wilk's test, the Attitude subscale met the requirement for a normal distribution across all three treatment groups ($p > .05$). However, the Knowledge subscale of the *APCQ* did not: control group ($p = .120$), IO ($p = .025$) and IBS ($p = .046$). A square root

transformation was applied to the *APCQ* Knowledge subscale as recommended by Lund and Lund (2015), which resulted in a normal distribution for all three treatment groups as assessed by the Shapiro-Wilk test ($p > .05$).

Table 4

Randomized Treatment Group Characteristics

<i>Independent Variables</i>	<i>Control Group</i>	<i>Information Only group</i>	<i>Information and Behaviour Skills Group</i>
N	17	19	21
Gender			
Men	7	14	13
Women	10	5	8
Age			
Median age Range*	46-55	36-45	36-45
Age Range	18-65	18-65	18-65+
Developmental level of ability			
Mean	65.41%	69.37%	68.19%
Median	64.00	64.00	71.00
Standard Error	3.618	4.320	3.429
Min	35	41	35
Max	88	100	100
Pretest total			
Mean	38.89%	42.37%	36.46%
Standard Deviation	(14.26)	(16.52)	(11.86)

Note. Developmental Ability = level of cognitive ability as described in instrument section page 53,

*Participants were asked only to identify an age category and not their exact age, therefore median age range is used

Finally, the assumption of homogeneity of variance was verified using the Levene's test for equal variance between treatment groups for all pretest scores and their

subscales ($p > .05$). Given the removal of outliers, homogeneity of variance and overall normality of the data distributions, the use of parametric statistics was justified.

Pretest group equivalency. Considerable effort was expended in the randomization of participants for overall ability category among the treatment groups. This was done to produce a consistent starting point. In order to test the success of this randomization, a comparison was made of the pretest results among treatment groups. As an ANOVA is fairly robust to violations in normality (Lund & Lund, 2015) and the data were approximately normally distributed, an F -test was used to compare pretest scores. The results indicated that there were no significant differences between treatment groups for any of the subscales or total scores for pretest scores (see Table 5).

A general linear model was used to determine if within the pretest scores, there was an interaction between gender, overall ability category, and treatment group allocation. The results indicate that there was no significant three way interaction between these variables on pretest totals, $F(3, 44) = .659, p = .582$. There was homogeneity of variance for the three-way variable interactions at baseline as assessed by Levene's test for equality of variance ($p = .086$). There was no correlation between treatment group allocation and pretest scores, $r_s(57) = -.088, p = .514$. Moderating variables of age, gender, location, and ability were also examined using the Spearman correlation coefficient and only 'ability' produced a statistically significant correlation to pretest scores, $r_s(57) = .546, p = .001$, which is to be expected. Given the results of the ANOVA and correlative studies, strong evidence of pretest group equivalency was established.

Table 5

ANOVA Evaluation of Pretreatment Group Equivalency for all Pretest Scores

		Statistic				
Scale		Sum of Squares	df	Mean Square	F	<i>p</i>
<i>APCQ</i> Knowledge subscale (sqrt)	Between Groups	1.408	2	.704	1.970	.149
	Within Groups	19.302	54	.357		
	Total	20.710	56			
<i>APCQ</i> Attitude subscale	Between Groups	8.275	2	4.138	.374	.690
	Within Groups	597.444	54	11.064		
	Total	605.719	56			
<i>APCQ</i> total	Between Groups	135.346	2	67.673	1.346	.269
	Within Groups	2714.233	54	50.264		
	Total	2849.579	56			
<i>APDTC</i>	Between Groups	27.370	2	13.685	.319	.728
	Within Groups	2316.630	54	42.901		
	Total	2344.000	56			
Pretest total	Between Groups	350.486	2	175.243	.862	.428
	Within Groups	10981.061	54	203.353		
	Total	11331.546	56			

Note. *APCQ* = Abuse Protection Concept Questionnaire, *APDTC* = Abuse Protection Decision-Making Task Analysis Checklist

Effect of Independent Variable (Hypotheses I and II)

To examine the main effect of each educational treatment on a participant's ability to recognize and respond appropriately to abuse as measured using the *APCQ* and the *APDTC*, comparisons were made within groups and between groups using a mixed ANOVA for all pretest, posttest, and retest scores. The mixed ANOVA used repeated measures at each of the test time intervals as the within subject factor and the treatment group as the between subject independent variable to examine potential interactions on

the dependent variable of the test scores. The following section presents results used to test Hypothesis I and II by examining the effect of educational treatment on *APCQ* and *APDTC* scores when scales are combined, viewed individually or broken down into specific subscale effects for posttest and retest scores. Analyses conducted throughout the results section represent exploratory study of the key variables and questions in the present investigation. Given very limited sample sizes for some of the key variables, it was decided that preliminary exploratory analyses would be conducted to assess the potential for possible effects. It is acknowledged that the sample sizes are too small to permit confidence in outcomes, however, these analyses point to important possible implications for further investigation. Analyses where sample sizes are limited are identified throughout.

Total test scores. Table 6 compares the mean pretest and posttest scores of the three treatment groups. The total scores for most of the participants were below 50% even after participating in either the IO or IBS program. However, all groups had a higher mean posttest score than pretest; the IBS group increased by almost 9%, while IO group showed a 5% increase and the control group increased by just under 2%. Five weeks post educational treatment both the IBS and IO groups showed an erosion of scores by approximately 2%, while the control group gained approximately 2% on mean total retest scores.

Table 6

Comparison of Mean Total Pretest, Posttest and Retest Scores (%) per Treatment Group

	Pretest		Posttest		Retest	
	<i>n</i>	M (SD)	<i>n</i>	M (SD)	<i>n</i>	M (SD)
Control	17	38.89 (14.26)	17	40.52 (16.82)	14	42.06 (13.38)
IO	19	42.37 (16.52)	19	47.54 (21.06)	19	45.03 (21.50)
IBS	21	36.46 (11.86)	21	45.34 (18.60)	19	42.98 (19.06)

Note. IO = Information only group, IBS = Information and Behavioural Skills group

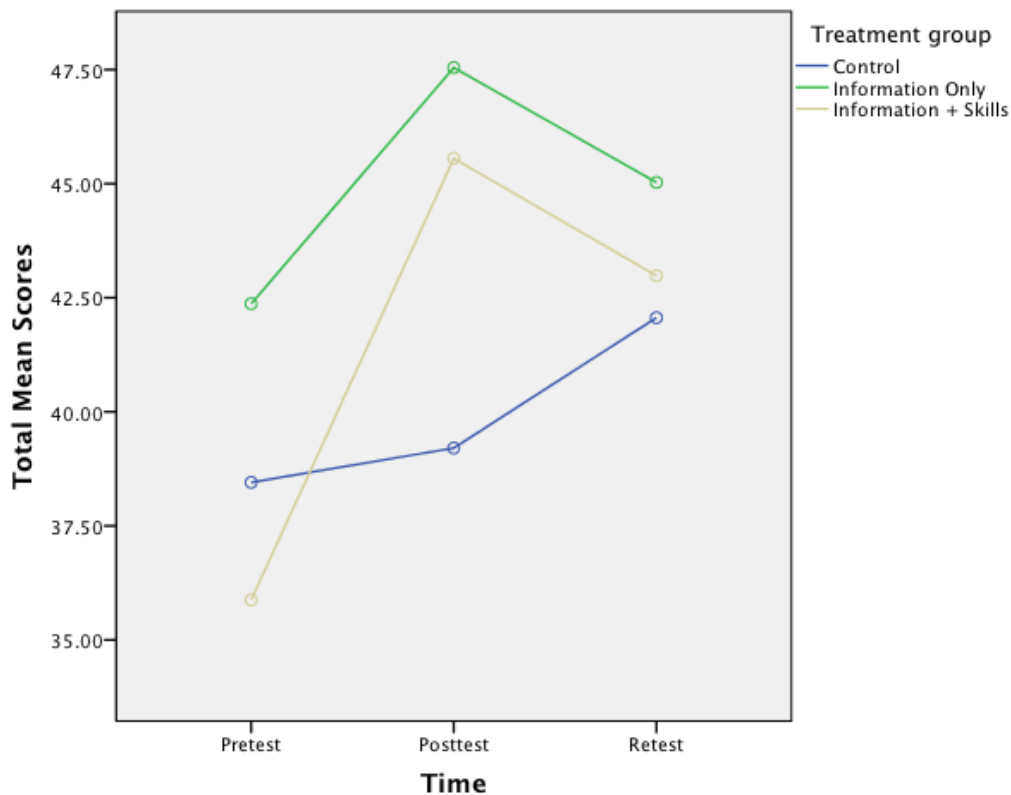
Mixed ANOVA results for total scores. Before interpreting the results, the data were assessed for normality, outliers, sphericity and homogeneity of variance and covariance. Seven of the nine cells were normally distributed as assessed by the Shapiro-Wilk test ($p > .05$). Specifically, the IO posttest scores ($p = .040$) and IBS posttest scores ($p = .030$) were not normally distributed. There were no outliers as assessed by examination of the residuals (all less than 3 standard deviations from the mean). There was homogeneity of variance for all time intervals as assessed by the Levene test ($p > .05$). There was homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .579$. Sphericity was violated as tested by *Mauchly's Test for Sphericity* $\chi^2(2) = 6.243$, $p = .044$ and so the Greenhouse-Geisser correction was applied to interpret potential interactions. There was no statistically significant interaction between treatment groups across time (pretest to posttest to retest), $F(3.57, 87.35) = 1.961$, $p = .115$. The main effect of treatment group intervention was also not significant, $F(2, 49) = .406$, $p = .669$.

However, the main effect of time was statistically significant for within group changes in score, $F(1.78, 87.35) = 8.245$, $p = .0001$, (η^2_p) = .144. The changes over time

were examined using the pairwise comparison chart. The mean difference in total test scores pretest to posttest of 5.20, 95% CI [1.67 to 8.74] was significant ($p = .002$), as was the mean difference of 4.46, 95% CI [.591 to 8.327] from pretest to retest ($p = .019$). However, the mean difference in total test scores of .744, 95% CI [-2.07 to 3.56] from posttest to retest was not significant ($p = 1.000$). Changes in total test scores over time for the IBS, IO and control groups are also illustrated in Figure 2.

Figure 2

Changes Over Time for Total Test Scores for the IBS, IO and Control Groups



Individual instrument test scores. The mean pretest, posttest and retest scores for each of the two test instruments (*APCQ* and *APDTC*) are shown in Table 7. The mean scores for both the IO and IBS groups were higher at posttest than pretest and

higher at retest than pretest. However, an erosion of mean scores from posttest to retest is observed. The control group however, had a small increase in the *APCQ* pretest to posttest and on the *APDTC* posttest to retest.

Table 7

Comparison of Mean Pretest, Posttest, and Retest Scores (%) for APCQ and APDTC

	Pretest		Posttest		Retest	
	<i>APCQ</i>	<i>APDTC</i>	<i>APCQ</i>	<i>APDTC</i>	<i>APCQ</i>	<i>APDTC</i>
	Mean (SD)					
Control	46.62 (16.93)	23.43 (11.69)	50.00 (20.27)	21.57 (13.44)	49.64 (13.55)	26.90 (14.82)
IO	53.16 (20.08)	20.79 (10.93)	58.95 (24.61)	24.74 (16.60)	54.87 (24.35)	25.35 (17.57)
IBS	44.17 (15.99)	21.03 (10.24)	54.64 (21.80)	26.75 (16.70)	52.24 (23.15)	24.47 (13.89)

Note. IO = Information only group, IBS = Information and Behavioural Skills group, *APDTC* = Abuse Protection Decision-Making Task Analysis Checklist

Mixed ANOVA results for the APCQ and APDTC. Before interpreting the results of the individual test instruments, the data was assessed for normality, outliers, sphericity and homogeneity of variance and covariance.

APCQ. For the *APCQ*, seven of the nine cells were normally distributed as assessed by the Shapiro-Wilk test ($p > .05$). The two remaining cells the IBS group at posttest ($p = .043$) and the control group at retest ($p = .006$) were not normally distributed. There were no outliers as assessed by examination of the residuals (all less than 3 standard deviations from the mean). There was homogeneity of variance for all time intervals as assessed by the Levene test ($p > .05$), there was homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .577$, and sphericity

was not violated as tested by *Mauchly's Test for Sphericity* $\chi^2(2) = 4.393, p = .111$. There was no statistically significant interaction between treatment groups across time (pretest to posttest to retest) for the *APCQ* total, $F(4, 98) = 1.789, p = .137$. The main effect of treatment group intervention was also not significant, $F(2, 49) = .677, p = .513$.

However, the main effect of time was statistically significant for within group changes in *APCQ* score, $F(2, 98) = 7.520, p = .0001, (\eta^2_p) = .133$. The changes over time were examined using the pairwise comparison chart. The mean difference in *APCQ* test scores pretest to posttest of 6.67, 95% CI [2.46 to 10.87] was significant ($p = .001$), but the mean difference of 4.64, 95% CI [-.31 to 9.56] from pretest to retest was not ($p = .073$). The mean difference in *APCQ* scores of -2.02, 95% CI [-5.90 to 1.85] from posttest to retest was also not significant ($p = .605$).

APDTC. For the *APDTC*, five of the nine cells were normally distributed as assessed by the Shapiro-Wilk test ($p > .05$). The four remaining cells were the control group at posttest ($p = .013$), IO at posttest ($p = .017$), the IO group at pretest ($p = .044$) and IBS group at posttest ($p = .049$). There were no outliers as assessed by examination of the residuals (all less than 3 standard deviations from the mean). There was homogeneity of variance for all time intervals as assessed by the Levene test ($p > .05$), there was homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .189$, and sphericity was not violated as tested by *Mauchly's Test for Sphericity* $\chi^2(2) = 1.283, p = .527$. There was no statistically significant interaction between treatment groups across time (pretest to posttest to retest), for the *APDTC*, $F(4, 98) = 1.287, p = .280$. The main effect of treatment group intervention was also not significant $F(2, 49) = .000, p = 1.000$.

Again, the main effect of time was statistically significant for within group changes in *APDTC* score but with a smaller effect size, $F(2, 98) = 4.478, p = .014, (\eta^2_p) = .084$. The changes over time were examined using the pairwise comparison chart. The mean difference in *APDTC* test scores pretest to retest of 4.10, 95% CI [.71 to 7.49] was significant ($p = .013$), but the mean difference of 2.28, 95% CI [-1.36 to 5.92] from pretest to posttest was not ($p = .380$). The mean difference in *APDTC* scores of 1.82, 95% CI [-1.34 to 4.98] from posttest to retest was not significant ($p = .481$).

Subscale scores of the *APCQ*. The mean pretest, posttest and retest scores for each of the two subscales of knowledge and attitude for the *APCQ* are shown in Table 8. The mean attitude subscore for all three groups increased pretest to posttest but began to erode at retest. The IBS group had the largest increase in score for the knowledge subscale and maintained that increase over time.

Table 8

Comparison of Mean Pretest, Posttest and Retest Scores (%) for Subscales of the APCQ

	Pretest		Posttest		Retest	
	<i>Knowledge</i>	<i>Attitude</i>	<i>Knowledge</i>	<i>Attitude</i>	<i>Knowledge</i>	<i>Attitude</i>
	Mean (SD)					
Control	24.71 (21.25)	68.53 (15.79)	27.06 (28.01)	72.94 (14.90)	24.29 (18.69)	75.00 (14.66)
IO	37.89 (27.40)	68.42 (17.08)	45.26 (33.23)	72.63 (20.40)	38.42 (35.00)	71.32 (20.20)
IBS	23.81 (20.85)	64.52 (16.87)	37.14 (31.96)	72.14 (17.22)	37.89 (29.55)	66.58 (20.62)

Note. IO = Information only group, IBS = Information and Behavioural Skills group, *APCQ* = Abuse Protection Concept Questionnaire, Knowledge= abuse definition subscale of the *APCQ*, Attitude= subscale of the *APCQ* that measures attitudes about authority, power, privacy and boundaries

Mixed ANOVA results for the Attitude and Knowledge subscales of the APCQ.

Before interpreting the results, the data was assessed for normality, outliers, sphericity and homogeneity of variance and covariance.

Attitude subscale. For the attitude subscale of the *APCQ*, eight of the nine cells were normally distributed as assessed by the Shapiro-Wilk test ($p > .05$). The remaining cell was the control at retest ($p = .030$) and it was not normally distributed. There were no outliers as assessed by examination of the residuals (all less than 3 standard deviations from the mean). There was homogeneity of variance for all time intervals as assessed by the Levene test ($p > .05$), and there was homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .655$. Sphericity was violated as tested by *Mauchly's Test for Sphericity* $\chi^2(2) = 8.774, p = .012$, so the Greenhouse-Geisser correction was applied to interpret results. There was no statistically significant interaction between treatment groups across time (pretest to posttest to retest) for the attitude subscale of the *APCQ*, $F(3.43, 83.97) = .822, p = .499$. The main effect of treatment group intervention was also not significant $F(2, 49) = .231, p = .794$.

However, the main effect of time was statistically significant for within group changes in the attitude subscale of the *APCQ*, $F(1.71 \text{ to } 83.97) = 3.753, p = .034$, with a very small effect size, $(\eta^2_p) = .071$. The changes over time were examined using the pairwise comparison chart. The mean difference in the attitude subscore pretest to posttest of 5.67, 95% CI [1.58 to 9.76] was significant ($p = .004$), but the mean difference of 4.08, 95% CI [-1.87 to 10.03] from pretest to retest was not ($p = .286$). The mean difference in the attitude subscale of the *APCQ* scores of 1.59, 95% CI [-4.06 to 7.24]

from posttest to retest was also not significant ($p = 1.000$).

Knowledge subscale of the APCQ. For the knowledge subscale of the *APCQ* the transformed data (square root of raw score) was used as discussed in the pretest data analysis. Seven of the nine cells were normally distributed as assessed by the Shapiro-Wilk test ($p > .05$). The two remaining cells were the control at posttest ($p = .024$), and IBS at posttest ($p = .036$). There were no outliers as assessed by examination of the residuals (all less than 3 standard deviations from the mean). There was homogeneity of variance for all time intervals as assessed by the Levene test ($p > .05$), there was homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .888$, and sphericity was not violated as tested by *Mauchly's Test for Sphericity* $\chi^2(2) = 3.384, p = .184$. There was a statistically significant interaction between treatment groups across time (pretest to posttest to retest), for the knowledge subscale of the *APCQ* $F(4, 98) = 3.413, p = .012, (\eta^2_p) = .122$.

The main effect of treatment group intervention was not significant $F(2, 49) = 1.361, p = .266$. However, the main effect of time was statistically significant for within group changes in knowledge subscale of the *APCQ* score but again with a smaller effect size, $F(2, 98) = 3.162, p = .047, (\eta^2_p) = .061$.

To examine the post hoc details related to the changes over time of the knowledge subscale of the *APCQ*, the file was split by treatment group and a repeated measures ANOVA was conducted. The IBS group had a statistically significant within-group change in the knowledge subscore of the *APCQ* over time, $F(2,36) = 9.360, p = .001, (\eta^2_p) = .342$. The mean change of .38, 95% CI [.09 to .67] pretest to posttest was statistically significant ($p = .009$), as was the mean change of .39, 95% CI [.09 to .68],

pretest to retest ($p = .008$), but the mean change of $-.01$, 95% CI $[-.21$ to $.22]$ from posttest to retest was not ($p = 1.000$). The IO group did not have a statistically significant change in knowledge over time, $F(2, 36) = 1.745$, $p = .189$, nor did the control group $F(2, 36) = .155$, $p = .282$.

Summary of effect of independent variable (Hypotheses I and II). Over time, there was a statistically significant increase in all test scores; however, there was no interaction between test scores and treatment group. There is a lack statistical evidence to suggest that both treatment groups improved significantly on test scores in comparison to the control group. Therefore, there is no support for Hypothesis I that predicted both the IO and IBS groups would score higher on posttest and retest scores as compared to the control group. However, there is limited statistical evidence to support Hypothesis II, which suggested that those participants who received all 10 interactive lessons would perform better on test measures in comparison to participants in the IO group. Participants in the IBS group had a statistically significant increase in the knowledge subscale of the *APCQ* at posttest and retest while the IO group did not.

Assessment of Moderating Variables (Hypotheses III and IV)

There were a number of independent variables inherent to the study that could moderate the results and thus were assessed for influence. These included the designated overall ability of the participant, the gender of the participant, and the age of the participant. Three-way interactions between any combination of these variables (treatment group, age, gender or ability) could not be assessed with any reliability, as there were insufficient numbers of participants in the cells to conduct meaningful analyses. Two-way interactions were conducted with treatment group and gender as the

two independent variables, but the results must be interpreted with caution, as two cells had as few as five participants in them. Interaction between treatment group and level of ability, or treatment group and age could not be completed either, as there were fewer than six participants in more than half of the cells. Instead, level of ability and age were assessed for their main effects. The exploratory findings outlined in this section may illustrate patterns but may have limited statistical power to test Hypotheses III and IV.

Gender and treatment group interactions. Table 9 shows the overall total test scores for men and women at the pretest, posttest and retest interval per treatment group allocation. With the exception of the control group, women generally scored higher than men at all test intervals. During the assessment of potential two-way interactions a comparison of mean scores for the *APCQ*, *APDTC* and combined total posttest/retest scores was conducted. However, the degree of improvement was also considered to be an important metric and therefore, an analysis was also conducted on the absolute changes in each scale (posttest-pretest) and relative changes in score ((posttest-pretest)/pretest). Using a general linear model with treatment group and gender as independent variables, an assessment of two-way interactions was completed at posttest and retest for mean scores and changes in score.

There were only two identified two-way interactions between gender and treatment group for any posttest scores or retest scores: the absolute change in score from pretest to posttest; and, the relative change in score from pretest to posttest.

Table 9

Mean (Standard Deviation) Total Pretest and Posttest Scores (%) For Men and Women

	Pretest		Posttest		Retest	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
n	7	10	7	10	7	9
Control	37.54 (14.15)	39.83 (15.02)	45.87 (17.38)	36.78 (16.25)	43.67 (10.31)	41.17 (15.34)
n	14	5	14	5	14	5
IO	38.73 (15.94)	52.56 (15.04)	41.79 (19.88)	63.67 (16.44)	40.24 (19.92)	58.44 (22.02)
n	13	8	13	8	13	6
IBS	35.90 (14.02)	37.36 (7.97)	44.70 (21.04)	46.39 (15.07)	43.21 (20.24)	42.50 (17.99)

Note. IO = Information only group, IBS = Information and Behavioural Skills group

Absolute change in total score from pretest to posttest. The results of the two-way ANOVA indicated that there was a statistically significant two-way interaction between gender and treatment group allocation for the absolute change in score from pretest to posttest $F(2, 51) = 4.251, p = .020, (\eta^2_p) = .143$. Residual analysis was performed to test for the assumptions of the two-way ANOVA and there was homogeneity of variance ($p = .131$). All cells were normally distributed as shown by the Shapiro-Wilk test ($p > .05$) but there were two identified outliers. The two-way interaction was repeated with the two outliers removed. Because there was no change in the simple main effects, the outliers were not removed from the data set, as per the recommendations by Lund and Lund (2015).

An examination of the simple main effect of gender indicated that there was a statistically significant difference in the change of score from pretest to posttest between men and women in the control group only $F(1, 51) = 6.029, p = .018, (\eta^2_p) = .106$.

Analysis of the simple main effect of treatment group indicated that women had a

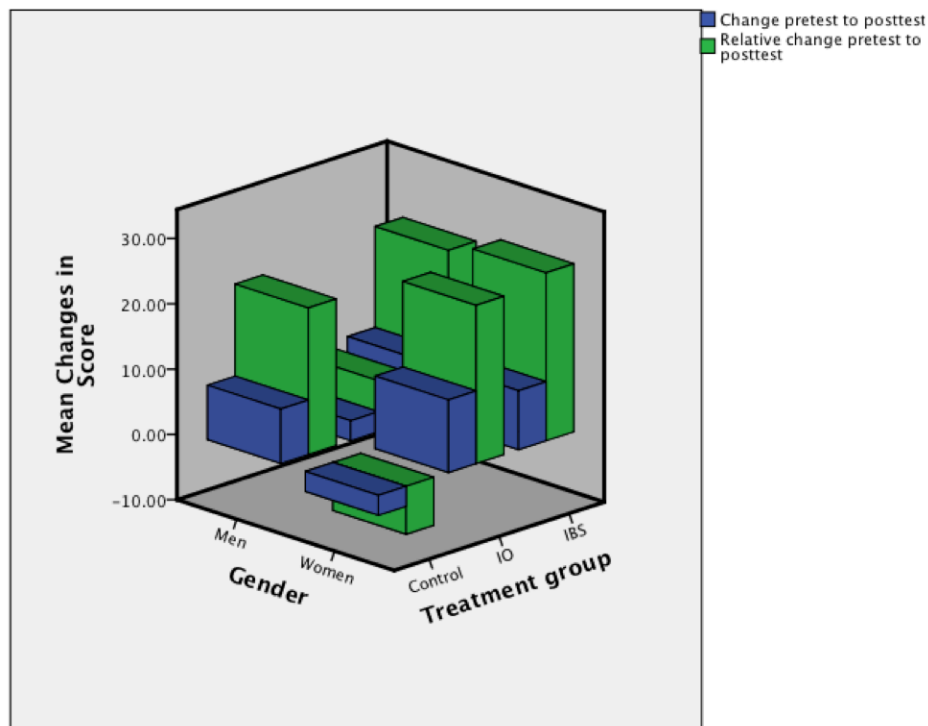
statistically significant change in total posttest scores depending on their treatment group allocation, $F(2, 51) = 5.372, p = .008, (\eta^2_p) = .174$, although men did not $F(2, 51) = 1.455, p = .243, (\eta^2_p) = .054$. Pairwise comparisons were run for each simple main effect with reported 95% confidence intervals and p -values (Bonferroni-adjusted) within each simple main effect. The seven men in the control group had a statistically significant improvement of 11.4 %, 95% CI [2.1 to 20.7], in comparison to the 10 women in the control group ($p = .018$). The five women in the IO group had a statistically significant mean total change in score from pretest to posttest of 14.2%, 95% CI [1.4 to 26.9], in comparison to the 10 women in the control group ($p = .025$). The eight women in the IBS group also had a statistically significant improvement in score from pretest to posttest of 12.1%, 95% CI [1.0 to 23.1], compared to the 10 women in the control group ($p = .025$). There was no statistically significant main effect of gender, $F(2, 51) = .152, p = .698$ or treatment group, $F(2, 51) = 2.061, p = .138$, for the absolute change in score from pretest to posttest. The differences in score between men and women in the control group may have some statistical relevance as each cell had more than 6 participants. However, the improvement of women in the IO group compared to women in control group must be viewed cautiously as there were only 5 women in the IO group. However, the improvement of the women in the IBS group as compared to the women in the control group may have more validity as the cells had greater than 6 participants.

Relative change in total score from pretest to posttest. There was also a statistically significant two-way interaction for the relative change in total score from pretest to posttest, $F(2, 51) = 3.706, p = .031, (\eta^2_p) = .127$, with homogeneity of variance maintained (Levene test, $p = .104$). However, the simple and main effects for the relative

change in score were similar to those for the absolute change in score so the details are not reported here. Figure 3 illustrates the potential two-way interactions between gender and treatment group for changes in score from pretest to posttest.

Figure 3

Potential Two-Way Interactions Between Gender and Treatment Group for Changes in Score from Pretest to Posttest



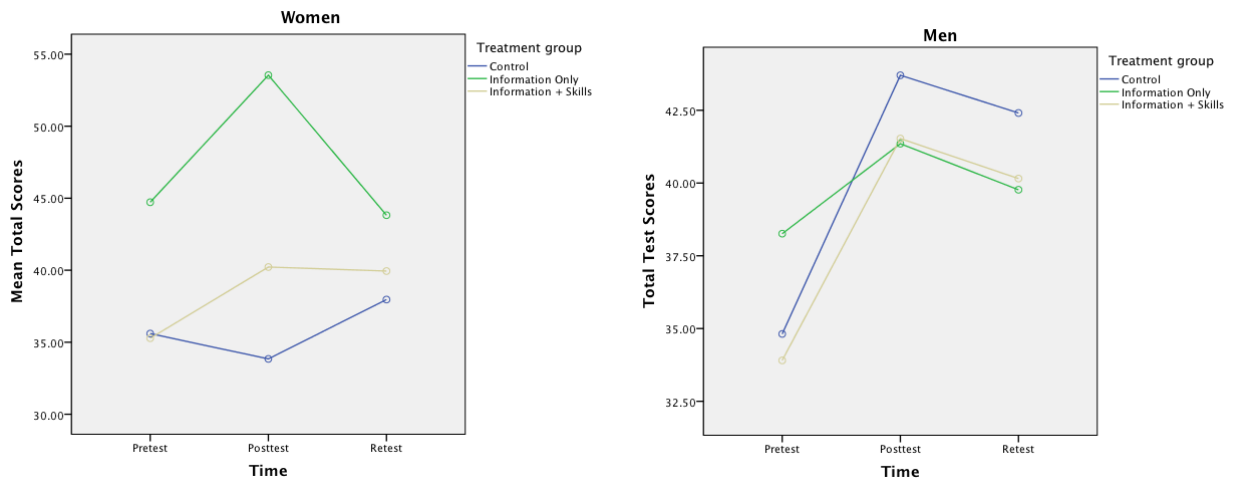
Note. IO = Information only group, IBS = Information and Behavioural Skills group

Summary of gender and treatment group interactions. There were limited data suggesting an interaction between gender and treatment group allocation. Only two changes in score from pretest to posttest demonstrated a potential influence of gender. The above findings suggest that men in the control group improved over time despite the lack of formal education compared to women in the control group, whose score stayed relatively constant. As well, women in either treatment group improved significantly from pretest to posttest for total scores compared to their female counterparts in the

control group. However, the observed interactions must be viewed cautiously because of the relatively small number of participants in each cell. Figure 4 illustrates the performance of men and women over time for total test scores.

Figure 4

Comparison of Total Test Scores Between Men and Women Over Time



The moderating effect of ability. The second combination of factors to be evaluated examined the potential interaction between treatment group and ability category. Table 10 compares the total pretest, posttest and retest mean scores for participants in each treatment group based on their designated level of ability. Those participants in the *higher* level of ability consistently scored higher than those in the *lower* level of ability. Participants in the *moderate* category of ability displayed greater variability depending on their treatment group. Interactions could not be reliably assessed, as there were fewer than six participants for any cell involving participants with *lower* or *moderate* ability. Instead, ability was assessed for its main effect using repeated measures ANOVA.

Table 10

Mean (Standard Deviation) Total Pretest and Posttest Scores (%) for Level of Developmental Ability and Treatment Group Allocation

	Pretest			Posttest			Retest		
	<i>Lower</i>	<i>Moderate</i>	<i>Higher</i>	<i>Lower</i>	<i>Moderate</i>	<i>Higher</i>	<i>Lower</i>	<i>Moderate</i>	<i>Higher</i>
<i>n</i>	5	4	8	5	4	8	5	2	7
C	30.89 (9.97)	37.36 (14.62)	44.65 (15.21)	24.89 (6.78)	45.00 (18.07)	48.06 (15.17)	31.00 (2.33)	39.17 (15.34)	50.79 (12.31)
<i>n</i>	5	5	9	5	5	9	5	5	9
IO	34.67 (8.89)	52.56 (15.04)	52.59 (14.82)	34.00 (3.41)	63.67 (16.44)	61.72 (17.60)	32.44 (7.89)	58.44 (22.02)	60.12 (19.27)
<i>n</i>	5	4	12	5	4	12	4	4	11
IBS	30.11 (8.23)	30.56 (9.17)	41.06 (12.41)	35.33 (4.77)	31.67 (1.27)	54.07 (19.56)	34.44 (7.18)	32.08 (11.56)	50.05 (21.60)

Note. Developmental Ability = level of cognitive ability as described in instrument section page 53, C= control group, IO = Information only group, IBS = Information and Behaviour Skills group,

Repeated measures ANOVA results for total scores based on ability. Before interpreting the results, the data were assessed for normality, outliers, sphericity and homogeneity of variance and covariance. All nine cells were normally distributed as assessed by the Shapiro-Wilk test ($p > .05$). There were no outliers as assessed by examination of the residuals (all less than 3 standard deviations from the mean). Homogeneity of variance was violated for posttest and retest intervals as assessed by the Levene test ($p < .05$), as was homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .002$. Sphericity was not violated as tested by *Mauchly's Test for Sphericity* $\chi^2(2) = 4.299$, $p = .117$. The lack of homogeneity of variance is not unexpected given the varying levels of ability being assessed. There was a statistically significant interaction between time and level of ability, $F(4, 98) = 3.008$, $p = .022$, (η^2_p)

= .109 and there was a statistically significant main effect of ability $F(2, 49) = 12.742, p = .0005, (\eta^2_p) = .342$.

Post hoc analysis of ability category revealed that the mean difference of 19.98, 95% CI [9.03 to 30.94] between participants with *higher* abilities and participants with *lower* abilities was statistically significant ($p = .0005$) for total test scores. As well, the mean difference of 18.30, 95% CI [6.41 to 30.20], between participants with *higher* abilities and participants with *moderate* abilities was also significant ($p = .001$), but the mean difference of 1.68, 95% CI [-11.72 to 15.08] between participants with *moderate* abilities and participants with *lower* abilities was not significant ($p = .951$).

To examine the post hoc details related to the changes over time for the total test scores, the file was split by ability and repeated measures ANOVA conducted again. There was no statistically significant change in total score over time for participants with *lower* abilities, $F(2,26) = .192, p = .827$ or for participants with *moderate* abilities $F(2,20) = 1.130, p = .343$. However, there was a statistically significant change in total score over time for participants with *higher* abilities, $F(2, 52) = 14.109, p = .0005, (\eta^2_p) = .352$. The mean change of 9.51, 95% CI [4.25 to 14.76] pretest to posttest was statistically significant ($p = .0005$), as was the mean change of 7.79, 95% CI [2.53 to 13.03], pretest to retest ($p = .002$), but the mean change of -1.73, 95% CI [-5.76 to 2.30] from posttest to retest was not ($p = .848$).

Repeated measures ANOVA results for APCQ and APDTC based on ability.

The effect of ability was also examined for both test instruments.

APCQ. For the APCQ, eight of the nine cells were normally distributed as assessed by the Shapiro-Wilk test ($p > .05$) one, participants in the *higher* ability at posttest, ($p = .017$) was not. There were no outliers as assessed by examination of the residuals (all less than 3 standard deviations from the mean). Homogeneity of variance was violated for posttest and retest intervals as assessed by the Levene test ($p < .05$), as was homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .031$, but sphericity was not violated as tested by *Mauchly's Test for Sphericity* $\chi^2(2) = 4.516, p = .105$. The lack of homogeneity of variance is not unexpected given the varying levels of ability being assessed. There was no statistically significant interaction between time and level of ability, $F(4, 98) = 2.295, p = .065$ for the APCQ.

The main effect of time was statistically significant for changes in APCQ score, $F(2, 98) = 4.697, p = .011, (\eta^2_p) = .087$. The changes over time were examined using the pairwise comparison chart. The mean difference in APCQ scores from pretest to posttest of 5.59, 95% CI [1.27 to 9.91] was significant ($p = .007$). However, the mean difference of 3.69, 95% CI [-1.55 to 8.92] from pretest to retest for the APCQ was not significant ($p = .019$), nor was the mean difference of -1.90, 95% CI [-6.06 to 2.25] from posttest to retest ($p = .785$).

APDTC. For the APDTC, seven of the nine cells were normally distributed as assessed by the Shapiro-Wilk test ($p > .05$), two were not. Specifically, participant scores in the *lower* ability category at pretest ($p = .030$), and participant scores in the *moderate* ability category at posttest ($p = .005$) were not normally distributed. There were no

outliers as assessed by examination of the residuals (all less than 3 standard deviations from the mean). There was homogeneity of variance for pretest and posttest time intervals as assessed by the Levene test ($p > .05$), but not for the retest interval ($p = .002$). There was homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .140$, and sphericity was not violated as tested by *Mauchly's Test for Sphericity* $\chi^2(2) = 2.796, p = .247$. There was a statistically significant interaction between ability category across time (pretest to posttest to retest), for the *APDTC* $F(4, 98) = 3.420, p = .012$ (η^2_p) = .087. The main effect of time was not significant for the *APDTC* $F(2, 98) = 1.654, p = .197$.

Post hoc analysis of ability category revealed that the mean difference of 15.95, 95% CI [7.49 to 24.40] between participants with *higher* abilities and participants with *lower* abilities was statistically significant ($p = .0005$) for the *APDTC*. As well, the mean difference of 14.62, 95% CI [5.44 to 23.81], between participants with *higher* abilities and participants with *moderate* abilities was also significant ($p = .001$), but the mean difference of 1.32, 95% CI [-9.02 to 11.67] between participants with *moderate* abilities and participants with *lower* abilities was not significant ($p = .848$).

Summary of ability and posttest/retest scores. Participants with *higher* abilities (mild developmental disabilities) consistently performed better than people with *lower* abilities and *moderate* abilities for the mean total posttest scores and the *APDTC*, but not necessarily for the *APCQ*. There was no statistically significant difference between the performance of people with *moderate* and *lower* levels of ability for any of the test scores.

The moderating effect of age. The third combination of factors to be evaluated examined the potential interaction between treatment group and age category. Table 11 compares the total pretest, posttest and retest mean scores for participants in each age category. Participants in the 36-45 year category had the highest pretest, posttest and retest scores compared to any other age category. However, interactions between treatment group and age could not be reliably assessed, as there were fewer than six participants for any cell involving participants under the age of 35 or over the age 65.

Table 11

Mean (Standard Deviation) Total Pretest, Posttest Scores and Retest Scores (%) for each Age Category

	Pretest (SD)	Posttest (SD)	Retest (SD)
<i>n</i>	9	9	9
18-35 years	34.51 (15.67)	43.8 (15.76)	45.74 (15.57)
<i>n</i>	8	8	8
36-45 years	43.75 (16.48)	50.00 (22.76)	48.96 (21.25)
<i>n</i>	16	16	14
46-55 years	40.42 (14.45)	44.69 (20.09)	43.33 (16.54)
<i>n</i>	18	18	16
56-65 years	37.13 (13.38)	41.51 (18.87)	38.53 (20.95)
<i>n</i>	6	6	5
> 65 years	42.69 (13.38)	47.96 (18.37)	46.89 (17.93)

Repeated measures ANOVA results for total scores based on age. Before interpreting the results, the data was assessed for normality, outliers, sphericity and homogeneity of variance and covariance. Nine out of the 10 cells were normally

distributed as assessed by the Shapiro-Wilk test ($p > .05$) one, the 56-65 year category at posttest ($p = .009$), was not. There were no outliers as assessed by examination of the residuals (all less than 3 standard deviations from the mean). Homogeneity of variance was not violated as assessed by the Levene test ($p < .05$), nor was the homogeneity of covariance as assessed by the Box's Test equality of covariance, $p = .942$. Sphericity was violated as tested by *Mauchly's Test for Sphericity* $\chi^2(2) = 0, p = .0000$, so the Greenhouse-Geisser correction was applied to interpret results. There was no statistically significant interaction between time and age, $F(4, 52) = .424, p = .791$, but there was a statistically significant main effect of time $F(1, 52) = 15.503, p = .0005, (\eta^2_p) = .230$. However, examination of multiple comparisons table did not reveal any statistically significant difference between any age categories over time ($p < .05$). Therefore, no further analysis of the moderating effect of age was conducted.

Summary of Hypothesis III and IV. There is statistical evidence to support Hypothesis III that participants with *higher* abilities will perform better than those with *moderate* or *lower* abilities. Notably, there is some statistical evidence to suggest that that gender influenced test scores and therefore only limited support for Hypothesis IV that age and gender do not influence posttest and retest scores. There was no statistical evidence to suggest that age influenced posttest scores, but two the two-way interactions between gender and treatment group indicate that women in the IBS group perform better than women in the control group. In addition, improvements seen in the control group scores were attributed solely to improvement for men and not women.

Case Study

Within the CL#2 agency, there was a group of people located in two different

rural settings who wanted to participate in the research but could not travel to the urban centre to join the other participants. Their numbers were also too small to be accommodated separately using the Control, IO and IBS study design. Instead, all 13 participants were given an ability category rank using the same tool as the randomized participants. They underwent pretesting, posttesting and retesting, and all 13 people participated in the complete 10-lesson curriculum (IBS treatment condition). Providing the full program to this group of participants reflects how abuse awareness is normally conducted by agencies and thus represents an authentic case study. The results were compared to a similar group of participants in the randomized study. There were 12 participants in the randomized study who also received the full educational treatment (IBS group) and who were ranked in the *higher* category of ability, these participants will act as a comparative treatment group. A group of 7 participants who were in the control group in the randomized study, and who also ranked in the *higher* ability category, who will act as a comparative control group.

Within the case study group, there were 8 women and 5 men. The overall ability mean score for the group was 82.23% (± 11.34) with a range of 71% to 100%. Therefore, everyone was categorized as having a *higher* level of ability. Their age ranged from the 18 to 35 year old category to the over 65 years group, with a mean age of approximately 40 years old.

Since there was no negative control, the evaluation of the case study results was conducted using paired sample *t*-tests rather than an ANOVA. Prior to conducting analyses, the differences in scores from pretest to posttest were assessed for outliers and normality to confirm the appropriateness of using parametric statistics. One outlier was

identified in all change of scores pretest to posttest in the case study group. Case number 2040104 was 1.5 box lengths greater than the edge of the boxplot on the total change pretest to posttest, the change in knowledge subscale, and the change in *APCQ*. It was three times the box lengths on the change in *APDTC*.

Case number 2040104 was a young woman who did remarkably well. She was enthusiastic, inquisitive and had not been exposed to the information in as much detail before. She quickly became a peer helper within the case study group. She had a relative change in score from pretest to posttest of 158%. This was the greatest improvement, not only for participants in the case study, but out of all 74 original participants. Therefore, for the purpose of the paired *t*-test between pretest and posttest, her data were removed. In absence of this outlier, almost all the data for the case study group were normally distributed as per the Shapiro-Wilk test for normality ($p > .05$), and there were no other outliers. Only the change in knowledge subscale of the *APCQ* was not normally distributed ($p = .043$). However, given that most of the data were normally distributed, paired sample *t*-tests were conducted.

Pretest equivalency. Table 12 provides the mean pretest, posttest and retest scores of the Case Study group and the comparative treatment group and control group. An independent *t*-test comparing total pretest scores, indicated that the mean difference of 3.29, 95% CI [-9.8 to 16.37] between the Case Study participants and IBS Comparison group was not significant, $t(22) = .521$, $p = .608$, with equal variance confirmed by the Levene's test ($p = .360$). This result suggests that the participants in the Case study were not significantly different from participants in the randomized study before educational treatment.

Table 12

Mean Total Test Scores (%) Comparing the Case Study Participants to Comparable IBS and Control Participants in the Randomized Study

	Pretest		Posttest		Retest	
	<i>n</i>	M (SD)	<i>n</i>	M (SD)	<i>n</i>	M (SD)
Case Study	13	37.31 (17.31)	13	49.87 (21.93)	8	45.63 (22.63)
IBS Comparison group	12	41.06 (12.41)	12	54.07 (19.56)	11	50.05 (21.60)
Control Comparison group	7	44.65 (15.21)	7	48.06 (15.17)	7	50.79 (12.31)

Note. IBS = Information and Behavioural Skills group

Posttest results. An independent *t*-test comparing the Case study group and the IBS Comparison group at posttest was also completed. The mean difference of 6.88, 95% CI [-9.40 to 23.25] between the Case Study and the IBS Comparison group was not statistically significant, $t(18) = .888$, $p = .386$ with equal variance confirmed by the Levene's test ($p = .630$).

The effect of education treatment was assessed using a paired sample *t*-test and then compared to similar results in the Comparison groups. Participants in the Case Study group demonstrated statistically significant mean differences between all pretest and posttest scores.

APCQ. For the APCQ there was a mean difference pretest to posttest of 11.25% (± 12.13), 95% CI [3.5 to 19.0], which was statistically significant $t(11) = 3.323$, $p = .008$. Participants in the IBS Comparison Group also had statistically significant improvement in the APCQ pretest to posttest while the participants in the Control Comparison group did not.

APDTC. Similarly, there was a mean difference of 5.833(± 8.36), 95% CI [.52 to

11.15] for the change in *APDTC* pretest to posttest for the Case Study participants, which was statistically significant $t(11) = 2.416, p = .034$. The IBS Comparison group in the randomized study also had a statistically significant improvement in the *APDTC* pretest to posttest while the Control Comparison group did not.

Posttest total. For the overall change from pretest to posttest, the Case Study group had a mean difference of 9.44 (± 9.77), 95%CI [3.24 to 15.65], which was statistically significant $t(11) = 3.350, p = .006$. The IBS Comparison group in the randomized study also had a statistically significant improvement in the total pretest to posttest while the Control Comparison group did not.

Retest results. By the retest interval, there were no statistically significant differences between the *APCQ* ($p = .060$), the *APDTC* ($p = .800$) or the total change in score from pretest to retest ($p = .089$) for the participants in the Case Study. However, the IBS Comparison group continued to have statistically significant improvement pretest to retest on the *APCQ* and the total retest scores but not for the *APDTC*. In contrast, the Control Comparison group did not have statistically significant improvement on the *APCQ* or the total retest scores but did demonstrate significant improvement on the *APDTC*.

The results suggest that the case study group improved considerably from pretest to posttest, similar to participants in the randomized study, but their gains were not sustained to the retest interval, while comparable participants in the randomized study were able to maintain their gains on the *APCQ* and total retest scores.

Participant Satisfaction

Participants were asked to provide anonymous feedback about the educational

program using a Likert-style survey, which they could complete independently or with the assistance of their support staff. A total of 65 participants completed the surveys after participating in all 10 lessons either during the research or at the sessions offered when the study was complete. A summary of the survey responses is summarized in Table 13.

Table 13

Participant Feedback Survey Results (%)

Question	Participant Response (<i>n</i>)		
	Yes	So-So	No
Did you enjoy the program?	94	6	0
Was the material easy to understand?	83	12	5
Was the material helpful?	92	5	3
Did you learn anything new?	85	6	9
Did you like the learning activities?	92	8	0

Summary

The preceding information provided analysis for five main categories of results. The first section established pretest group equivalency and verified the appropriate use of parametric statistics. As well, the first section provided evidence of the validity and reliability for the two test instruments used to measure abuse related knowledge and skill, the *APCQ* and the *APDTC*.

The second section examined the effect of the independent variable of educational treatment on posttest and retest scores, thereby testing Hypotheses I and II. Hypothesis I suggested that those adults provided with either abuse education program would score higher than those adults in the control group on posttest and retest scores. It was also

hypothesized that those adults provided with a broader range of information, motivational, and behavioural skills necessary to recognize and report abuse would score higher on the posttest and follow-up retention tests than the group that received the truncated, information-based only lessons (Hypothesis II). Hypothesis I was not supported, as there was little evidence to support statistically significant improvement in posttest and retest scores for participants in the both the IBS and IO group compared to the control group. However, Hypothesis II had limited support, as there was statistically significant evidence that participants in the IBS group performed better on the knowledge subscale of the *APCQ* at the retest interval compared to participants in the IO group.

The third section examined moderating variables and tested Hypotheses III and IV. Hypothesis III was supported, as there was statistical evidence to suggest that adults with developmental disabilities who had *higher* skills performed better than adults with *moderate* or *lower* skills. Hypothesis IV had limited support as gender influenced posttest scores. Age however, was not a moderating factor.

Section four compared a naturalistic case study group to similar participants in the randomized study and the results indicated that similar effects were seen with a sample of convenience as compared to a randomized control sample for posttest results but not retest results.

Finally, as part of the evaluation of classroom context, participant feedback surveys were analyzed. Overwhelmingly, participants found the educational approaches employed in the *Preventing, Recognizing and Reporting Abuse* curriculum helpful, easy to understand and engaging.

Discussion

Abuse awareness education is mandated for all adults with developmental disabilities receiving supports and services in Ontario under Quality Assurance Measures (QAM), Regulation 299/10. However, there is a dearth of empirically evaluated curricula or programs to guide clinicians and front-line professionals to meet the provincial standard. The current research study addressed the gap in evidence-based resources by evaluating the abuse awareness program entitled *Preventing, Recognizing and Reporting Abuse*.

This program was informally assessed during its initial development and subsequent delivery to various agencies within Ontario and had shown promise as an effective educational approach to enhance both the concepts and the skills related to abuse protection for adults with developmental disabilities. However, an objective study with appropriate comparison groups was needed to determine whether reliable positive outcomes could be demonstrated. The present study was designed to evaluate the program for this purpose. Two initial measurable research questions were the target of the program evaluation.

1. Is there a measurable benefit in abuse protection knowledge and skills for adults with developmental disabilities who receive an abuse protective educational program that encompasses an information, motivation and behavioural skills delivery model compared to an information-only based model?
2. Do adults with developmental disabilities perform differently on measures of abuse protection knowledge and skills depending on their age, geographical

location, gender, and developmental level of ability after experiencing one or the other program models?

The research design was a quasi-experiment with nonequivalent group pretest-posttest/retest with multiple probe testing, and involved both a randomized control study and a case study comparison. Comparisons about abuse protection knowledge and skills were made amongst the three groups of participants who were stratified by their level of ability and then randomly divided into one of three educational treatment groups. The three groups were an Information Only (IO) group who received 3 information-based lessons from the evaluated program, an Information and Behaviours Skills (IBS) who received 10 information and behavioural skill-based lessons, and a control group who were provided an alternate non-abuse related social skill learning opportunity. Consideration was also given to other moderating independent variables such as gender, age and cognitive ability.

Abuse protection knowledge was measured using the *Abuse Protection Concept Questionnaire (APCQ)* and abuse protections skills measured using the *Abuse Protection Decision-Making Task-Analysis Checklist (APDTC)*. Although there is no associated hypothesis, an important third research question arises from the use of the *APCQ* and *APDTC* in this study.

3. Is there preliminary evidence that the *APCQ* and the *APDTC* are valid and reliable measurement instruments?

To answer the first research question, two hypotheses were tested. The first hypothesis of the research was that those adults provided with either the IO or IBS program would score higher than those adults in the control group on posttest and retest

scores (Hypothesis I), as an indication that both an information-based curriculum and information and skill-based curriculum would improve abuse protection skills. In the context of this study, the response of the participants fell short of demonstrating a statistically significant difference in mean scores on post-intervention testing between both treatment groups and the control group. It was also hypothesized that those adults in the IBS group would score higher on the posttest and follow-up retention tests than participants in the IO group (Hypothesis II). There was limited statistically significant support for Hypothesis II.

The second research question was addressed by testing two additional hypotheses. The third hypothesis was that participants with mild intellectual disabilities would perform better across all groups and treatment variables compared to those with moderate or severe intellectual disabilities. There was statistical evidence to support Hypothesis III. Finally, it was anticipated that there would be no difference between men and women in terms of posttest and retest scores of similar intellectual capabilities or between people of different ages (Hypothesis IV). There was limited support Hypothesis IV as there is some statistical evidence that gender influenced changes in score from pretest to posttest depending on their treatment group allocation.

Evaluation of the *Preventing, Recognizing and Reporting Abuse* education program involved assessment of the effectiveness of the curriculum (research questions one and two). Program effectiveness was also viewed in light of the specific methods used during this study and included consideration of the program delivery, classroom context, facilitator effectiveness and participant satisfaction and will be the focus of the first section of the discussion. Examination of the strengths and limitations of the *APCQ*

and the *APDTC* to measure abuse protection knowledge and skill addressed the third research question and is the focus of the second section of the discussion. The third section of the discussion reviews the factors that contributed to the validity of the research findings. Specifically, it reviews factors that contributed to treatment fidelity and then factors that limit the significance of the findings. In the final section of the discussion, consideration is given to the significance of the research, future research opportunities, as well as exploration of the clinical and practical implications for agencies providing supports and services in Ontario.

Evaluation of two approaches to abuse protection education

This evaluation was designed to compare two different treatments, involving different amounts of instructional time and different curriculum features. The IO group received three information-based lessons that aimed to teach participants the definitions of five types of abuse, understand the boundaries related their bodies and who should or should not be touching the private parts of their body, as well as creating simple safety plans. Participants in the IBS group received these same lessons but also received seven additional lessons that emphasized recognizing how your body feels when it is touched in a way that you like compared how you feel when your body is touched in a way you do not like, and practicing assertive communication skills to communicate how you feel about a situation. Participants in the IBS group were also provided with ample opportunity to role-play how to respond to various types of abuse lures and how to tell someone about abuse. To improve decision making skills, IBS participants also received information about what can happen when abuse is kept secret or what happens when abuse is disclosed, as well as discussing scenarios that are unpleasant but do not

constitute abuse. Finally, participants were provided with awareness related to right and responsibilities related to abuse. A detailed list of the lessons provided can be found in Appendix B.

To answer the first and second research, the following subsection will discuss the results as they relate to the independent variables (Hypotheses I and II) and the moderating variables (Hypotheses III and IV). The results of these hypotheses, together with the classroom model used in this research, will be compared to previous studies to describe effective approaches to abuse protection education and adults with developmental disabilities.

Effect of independent variables. To test Hypotheses I and II, the data were first examined for significant differences between groups across time using a mixed repeated measures ANOVA.

Hypothesis I. The results of the statistical analyses indicated that there was insufficient reliable evidence to support Hypothesis I. That is, participants in the IO and IBS group did not perform significantly better than the control group according to the statistical analyses. Examination of the data for the treatment groups and control group indicated that participants in the IBS group had the greatest improvement from pre-test to post-test at 25%, compared to 12% for the IO group and 5% for the control group. However, the mean difference of nearly 20% between the IBS and control group did not reach significance as assessed using the mixed repeated measures ANOVA. As well, although the participants enrolled in either of the two treatment groups scored, on average, higher than participants in the control group at the posttest and retest interval, the differences were not statistically significant. For example, the mean posttest scores for

those in the treatment groups were approximately 10% higher than pretest scores, indicating that although treatment group scores improved, the improvement was insufficient to be statistically significant. However, when considering the complexity of the material, the small sample size, the range of participants' cognitive and communication abilities, a potentially contaminated control group and the considerable variations in score and resulting large deviations from the mean for posttest and retest scores (as observed in Table 6), it is not surprising that analysis did not detect improvements in mean scores. It is possible that the curriculum did not offer sufficient teaching strategies to improve knowledge and skill or that the experimental design made analysis prone to Type 2 errors, or a combination of these factors resulted in the lack of statistically significant findings. However, it may be informative to examine individual and within-group changes in performance over time, even if group comparisons do not result in statistically reliable differences. This allows for consideration of the participants' education as a continuum of learning, under various instructional and curriculum conditions rather than a once a year compliance review requirement.

Changes in scores over time. Although there was no statistically significant interaction between the educational treatment groups and the control group for total test scores, the *APCQ* or the *APDTC*, there was evidence that these measures increased over time for all study participants. Specifically, the total test scores improved at posttest compared to pretest and although there was general erosion of mean scores, the overall test scores were still statistically significantly higher at retest compared to pretest. The mean scores of the *APCQ* also demonstrated an overall significant improvement from pretest to posttest for the both treatment groups but did not maintain this positive trend

five weeks post intervention. Interestingly, the mean scores of the *APDTC* did not increase significantly from pretest to posttest but did improve significantly by the retest interval. The *APDTC* requires considerable communication skills to accurately score points for the questions about how to respond and report abuse; it is unlikely to improve by chance (unlike the forced response questions on the attitude subscale which are more prone to correct guess responses). Comparison of the mean scores at retest indicate that participants in the control group had the highest mean score on the *APDTC* at the retest interval time; in fact, it was the highest mean score for any group at any time interval. Therefore, it is likely that the improvement in *APDTC* by retest were influenced by a significant improvement in scores for the control group. It is possible that this result is indicative of a contaminated control group. As previously mentioned, improvements in the *APDTC* score are less likely to improve by chance given the significant reliance on both verbal and problem-solving skills. Participants had to assess a situation, determine the task required to be safe and then to report that situation to a trusted person. Yet, when the improvements over the longer-term in abuse protection skills (as measured by the *APDTC*) are viewed in conjunction with the short-term improvement in abuse protection knowledge (as measured by the *APCQ*), one could speculate that educational treatment demonstrates an improvement in knowledge, but having ample opportunity to discuss abuse prevention skills with care providers who can help conceptualize the theory learned in the classroom into practical applications in day- to-day living is also needed to improve skills. Infusing the community living agencies with a variety of abuse prevention strategies may have provided opportunity for dialogue and opened the door for teachable moments.

Hypothesis II. There is evidence that the IBS group performed better than those in the IO group in terms of their ability to learn and then retain information related to abuse definitions, thereby lending limited support to Hypothesis II. Specifically, when comparing differences between group performances, only participants in the IBS group had a statistically significant improvement in abuse knowledge as measured by the *APCQ* knowledge subscale from pretest to posttest and maintained those gains to the retest interval compared to either the control group or the IO group. This result may indicate that the extra time and interactive lessons helped the participants recall the various types of abuse, which are tested in the *APCQ* knowledge subscale.

However, demonstration of knowledge and skills are essential to repel or report abuse and therefore the gains made by the IBS group *in knowledge* should not be interpreted as sufficient evidence to indicate that safety has been improved. Rather the lack of significant improvement in abuse protection skills, given the intensive training program undertaken by the IBS group, suggests that even more opportunity to learn and practice skills may be required to improve safety. However, these results do suggest that providing abuse awareness using flyers or brief educational opportunities is likely less effective than the program evaluated here.

The lack of significant findings in terms of differences between the treatment groups and the control group observed in this research study are similar to those seen by Robinson-Whelen et al. (2014) in their comprehensive assessment of *A Safety Awareness Program for Women with Disabilities (ASAP for Women with Disabilities)*. Although women with other defined physical and/or mental health disabilities in the study showed statistically significant improvement at posttest and retest on all measures of abuse

awareness and safety, the sample of 63 women with mild to moderate cognitive disabilities did not perform quite as well. These participants' results on a measure of safety self-efficacy failed to reach statistical significance in comparison to a control group and showed loss of skills at the retest interval.

The overall improvement in posttest and retest results observed in this study are also consistent with the results from a similar program evaluated in the United Kingdom by Long and Holmes (2001). These researchers used the *Test of Knowledge About Keeping Safe (TKKS)* measurement tool to assess participant safety in the community after attending a 15-week *Keeping Safe* Group. The 18 men and women, with mild to moderate developmental disabilities, all performed significantly better on posttest and retest compared to pretest.

Likewise, the published results of the *Feel Safe Program* (Mazzucchelli, 2001) suggested there was no significant difference in knowledge between the control and treatment group at posttest or retest using the *Feel Safe Questionnaire*. However, the 10 participants in the treatment program did show significant improvement in abuse protection skills using the Protective Behavioural Skills Evaluation, as compared to the 10 participants in the control group at the retest interval. The current research study is similar to the *Keeping Safe Program* in that the curriculum requires 8 to 12 hours of instruction. However the *Keeping Safe Program* differed in the delivery model as it was spread out over four to eight weeks with a two hour booster lesson six weeks after the final lesson (Mazzucchelli, 2001).

Case study comparison. Many agencies in Ontario provide yearly abuse awareness in group settings where adults with developmental disabilities congregate

naturally, for example, at work or day programs or within individual residential programs. Providing all 10 lessons of the program, in a manner similar to the IBS group in the randomized study, to a natural grouping of 13 participants reflects how abuse awareness is normally conducted by agencies and thus represents an authentic case study. Participants in the case study demonstrated the same within-group improvement on posttest scores as did a comparable group of adults in the randomized study.

Notably, the case-study participants did not maintain their improvements at retest on any test measure. Unlike case study participants, the IBS comparable group demonstrated statistically significant improvement pretest to retest on total retest scores and the *APCQ*. The lack of significant findings on the paired sample *t*-test between pretest and retest for the case study group may be confounded by the fact that four participants could not be evaluated at retest due to scheduling conflicts. However, case study participants had also never received abuse awareness education before and so without previous instructional scaffolding, may not have been able to retain the knowledge and skills acquired at posttest.

Summary of Hypotheses I and II. In summary, participants in the IBS group demonstrated retention of abuse protection knowledge significantly better than either the IO or control groups. The IBS group had the largest mean change in score from pretest to posttest, although the difference between their performance and that of the control group failed to meet the criteria of statistical significance. Together, these results indicate limited support for Hypothesis II and speak to the benefit of an educational program that encompasses the IMB model versus an information-only program to assist people to move along the continuum of abuse awareness and safety.

Effect of moderating variables. When interpreting the results to evaluate the effectiveness of the abuse education programming, the interaction of the educational treatment with independent variables that may moderate the effect were also considered. Moderating variables included age, gender and developmental level of ability.

Hypothesis III. As hypothesized, participants with *higher* abilities had higher mean scores than those with *lower* abilities, regardless of whether they were assigned to the IBS group, IO group or control group on all pretest, posttest and retest scores. Participants with *higher* abilities also had higher mean scores on all pretest, posttest and retest scores as compared to participants with *moderate* abilities with one exception. Participants in the IO group with *moderate* ability had a slightly higher mean posttest score than participants with *higher* abilities in the control group. Similarly, in almost all instances, participants with *moderate* abilities consistently had higher pretest, posttest and retest mean scores than participants with *lower* abilities. Although interactions between treatment group allocation and ability category could not be assessed because..., ability appears to have influenced total test scores and *APDTC* scores over time. For both the total test scores and the *APDTC*, only participants in the higher level of ability improved over time compared to those in the *moderate* or *lower* category of ability. However, ability did not influence *APCQ* scores over time. This result suggests that the *APDTC*, which is heavily reliant on verbal skills, is more strongly influenced by ability than the *APCQ*, which incorporated more non-verbal cues and prompts during testing. The reality is that adults with developmental disabilities require verbal skills to report abuse effectively. Incorporating more non-verbal or augmentative tools into the curriculum and into the *APDTC* could help improve the performance of people with *moderate* and *lower*

abilities.

When considering similar previous research, another common characteristic amongst the sample populations of the *ESCAPE*, *Keeping Safe*, *Feel Safe* and *ASAP* programs are that participants had mild to moderate developmental disabilities. In contrast, this research included participants with a broader range of abilities, which quite likely influenced the significant variability in mean test scores and affected the identification of significant improvement in posttest scores between groups. However, there was significant value in including people with severe disabilities in this study because all adults with developmental disabilities living in Ontario must receive abuse awareness. Additional work is required to make curriculum such as this one more accessible to adults with significant challenges to learning.

In this study, there is considerable variability in test scores and this is most likely due to the involvement of participants with a wide range of cognitive abilities. Therefore, statistical analysis of the data may not identify all the potential implications and a more pragmatic approach maybe required when determining if abuse preventions programs are effective for people with *lower* abilities. For example, out of the 74 participants, 18 people showed no improvement or actually scored lower on posttest results. Six of these were in the control group. Since they did not receive any abuse training, this result was expected. However, the remaining 12 participants who failed to show improvement did receive training. There was equal representation from all three levels of ability among these 12 participants. In other words, it was not only those participants categorized with *lower* abilities who failed to show improvement on posttest. It is quite likely that the concepts related to abuse protection were beyond the zone of proximal developmental for

some participants (Vygotsky, 1978). Instead, increasing awareness related to healthy care-giver relationships and the power and control a person has over their own body, even when you need significant support from care providers, maybe required before a participant can recognize unhealthy care-provider relationships. However, a lack of improvement for some participants may have also been related to insufficient teaching methods combined with a lack of classroom and/or real life experiences to inspire the type of knowledge accumulation that was necessary to demonstrate improvement on the two test instruments.

Hypothesis IV. There is limited support for Hypothesis IV, which predicated that posttest scores would *not* be influenced by moderating variables such as age and gender. The analyses conducted to assess this hypothesis suggested that age was not a moderating variable that influenced pretest, posttest, or retest scores in this research study.

However, gender did have a moderating effect on group performances. Women in the IBS group showed statistically significant improvement on their posttest scores compared to women in the control group, while men did not show the same pattern. As well, it is interesting to note that the five women in the IO group had mean *APDTC* and total test scores that were higher than their male counterparts in the same group, and higher than women in the control group. However, there was an insufficient number of women involved to allow for a statistical test of these observed differences. Therefore, these observations should be interpreted with caution. If these results could be replicated with a larger sample size, this would suggest that similar women can translate theoretical information received in the three knowledge-based lessons into improved behavioural skills as measured by the *APDTC*.

The improvement from pretest to posttest for overall scores observed by women in the IBS group is similar to the results reported for the *ESCAPE* program (Khemka et al., 2005). Women in the *ESCAPE* demonstrated statistically significant differences compared to the control group for abuse knowledge, empowerment, and abuse decision-making on posttest and retest. The only scale that did not show improvement was the Stress Management Survey (Khemka et al., 2005). The *ESCAPE* program was delivered for 40 to 50 minutes twice a week for up to 12 weeks. The sample of 49 participants were all women with mild to moderate developmental disabilities (Khemka et al., 2005), while this study involved 26 women with a broader range of abilities. Another difference between the two studies is that women in this research were not able to maintain their improvement five weeks post-intervention, while women in the *ESCAPE* program maintained statistically significant retention results approximately three months after intervention. Women in the *ESCAPE* program attended an *ESCAPE* support group before completing the retention evaluation (Khemka et al., 2005), while women in this study did not receive an opportunity to review content before retention testing. The results of the *ESCAPE* evaluation suggest a benefit to chunked training with repetition to improve retention which was not incorporated into this research study.

Work done by Doughty & Kane (2010) and Mikton et al. (2014) highlighted the fact that women are more likely to receive abuse prevention programs as compared to men. One possible explanation of the statistically significant improvement from pretest to posttest scores of women in the IBS group in this study is that the women may have had previous exposure to similar programs, which provided the instructional scaffolding to progress at an accelerated level compared to their male counterparts. If this is the case,

it lends more weight to an on-going abuse awareness program (i.e. a program that becomes one part of the culture of a facility), rather than an annual 3-day curriculum-based approach.

As described in the results section, there was also an influence of gender on the control group's performance. The results of the statistically significant two-way interaction between gender and change in total score from pretest to posttest indicated that the seven men in the control group improved significantly compared to their female counterparts in the control group. This finding suggests that men in the control group improved with time despite the lack of formal education, when compared to women in the control group whose score stayed relatively constant. It is possible that front-line professionals, families or peers (who were unaware of the restriction on formal education for the control group) exposed the men in that group to the abuse education material inadvertently. However, it is also possible that men took a more active role in seeking out the knowledge that they knew their peers were being exposed to in the other two treatment groups. For example, one of the outliers whose data was removed, was a young man in the control group who helped his romantic partner with her homework; the enthusiasm he demonstrated is advantageous to the culture of the organization but not necessarily advantageous for a researcher. Although the improvement seen in this group of men is very interesting, it is important to view their progress cautiously as the small sample size available for comparison makes these findings tenuous at best.

Hypotheses testing summary. Overall, the results of Hypothesis I to IV support the use of the information, motivation and behavioural skills model of education that was employed in the IBS group for abuse awareness for adults with developmental disabilities.

Although most participants improved from pretest to posttest in either of the two treatment groups, caution is required because the gains were small (less than 10%), not always sustained five-weeks post-intervention and with the exception of the knowledge subscale for the IBS group, scores were not statistically significantly different than the control group. Participants in the IBS group were the only group to demonstrate statistically significant retention of the abuse definitions compared to either the IO group or the control group. Participants in the control group began to show a rise scores at the retest interval and may be signs of a contaminated control group but may also highlight the importance of peer tutoring and teachable moments by care providers. Generally, women performed better than men and this may be the result of previous exposure to similar curriculum content. People with *higher* abilities generally score higher on pretest, posttest and retests than those with *lower* or *moderate* abilities. However, there are other factors that should be considered when determining effective abuse education programs namely, the context in which the lessons are delivered, participant satisfaction and facilitator effectiveness (Buston et al., 2002). The additional factors will be explored in the following discussion.

Classroom context. This research study involved informed, consenting and enthusiastic learners. This was considered to be important because in Ontario abuse awareness is mandated for all adults with developmental disabilities. The right of adults with developmental disabilities to decline abuse awareness training is juxtaposed with agencies trying to meet the QAM standards. It is therefore unrealistic to expect that all people attending awareness programs will be as eager and willing to participate as the sample group in this research. In the absence of willful participation or if adults were

forced or coerced to attend training sessions they were not interested in, it would potentially violate their rights and only further promote learned compliance. However, abuse awareness is vital, which makes it that much more important that these programs be engaging, captivating, that they empower decision-making skills, and be sensitive to the fact that many participants will have past experiences with abuse or trauma.

It will be important for educators to consider pairing abuse prevention education with classes that focus on healthy relationships and sexuality. If abuse prevention education is provided without sufficient time for the participants to experience and understand non-abusive intimate relationships, it could result in adults viewing all touch and intimacy as inappropriate. As an example, at the pretest interval, eight participants who correctly identified the vignette of an accident, as an accident, changed their answers at posttest and identified it incorrectly as physical abuse. All eight were in one of the two treatment groups and not the control group. Ten people, who originally identified the consenting sexual relationship as non-abusive, changed their posttest response and incorrectly identified it as sexual abuse. Seven of 10 people who incorrectly changed their posttest response were participants in one the two treatment groups while the remaining three were in the control group. Conversely, seven participants who identified the accident incorrectly on pretest, and three who incorrectly identified the consenting sexual relationship, changed their response on posttest to identify them as non-abuse, all were in the IBS or IO treatment groups. Participants in this study may have benefited from more time spent discussing healthy relationships to prevent the pathologizing of ‘normal’ relationships that occurred. This outcome supports the opinions of Barger et al. (2009) who suggested that given the complexities of sexual abuse and people with

developmental disabilities, training that targets a single issue will be less effective than a comprehensive approach.

Naturalistic environment. The results of the participants in the case study group at posttest indicate that delivery of the entire program to a natural selection of participants is as effective as it is in a controlled study. There were three participants out of the total sample of 74 adults, who were able to improve their overall performance on posttest scores by more than 75%. Two of those participants were from the case study group. This group had not been exposed to abuse awareness education before, other than being offered an informational pamphlet. They were enthusiastic, engaged and very eager to learn. Unfortunately, they did not maintain the gains seen at posttest on follow-up retention tests, suggesting again the importance of previous instructional scaffolding and frequent booster interventions to maintain skills.

Participant satisfaction. After completing all 10 lessons of the program, participants completed a Likert-like survey with assistive visual cues to provide feedback about the educational program. The forms were completed anonymously by 65 participants, only after attending all 10 lessons either during the research or at the sessions offered when the study was complete. The survey asked the participants to circle “yes”, “no” or “so-so” for questions about overall enjoyment, ability to understand the content, helpfulness of material, novel learning opportunities and use of games, and activities as a teaching strategy. Based on the results summarized in Table 21, 94% of respondents enjoyed the course, 90% felt the material was easy to understand, 92% found the information helpful, 90% learned something new, and 94% liked the games and activities. These results may be indicative that participants genuinely enjoyed the

learning opportunity, but might also be reflective of a population that tends to want to please the people they are working with. However, comments offered by participants do suggest that satisfaction with the program was sincere. Many of the participants also commented on the positive attributes of the facilitators. Two comments are worth quoting verbatim. One participant wrote, “I want to learn more things. Cause I never say No.” This participant was motivated to learn more and change his or her behaviour. This is a large part of what the Information, Motivation and Behavioural Skills model of sexual health education aims to achieve. Another participant wrote, “I liked helping. I’m glad I joined the class. I’m glad I made friends.” Participants like this can be empowered to become peer facilitators in the ongoing process of abuse awareness. Together, this information suggests that the abuse program was delivered in a format that the participants found useful, engaging and enjoyable.

Facilitators. In this research program, volunteer research students conducted the educational facilitation and data collection. To maintain treatment fidelity, the same two facilitators taught the same grouping of lessons for all participants. A benefit of this approach was the development of enhanced teaching skills by the facilitators for their particular lessons. Having a specialized team of abuse awareness trainers at each organization (or shared across organizations) should provide better delivery of the lessons. Abuse awareness education should include facilitators who can adapt lessons to fit the audience, and use humour, role-plays and games to effectively engage the participant so that they see value in the training program and thus promote a willingness to return for refreshers and reviews.

Having male and female facilitators added to the comfort level for both men and women participants and team teaching afforded more opportunity for one-to-one support. Peer trainers could further enhance this model. However, given the number of people who disclosed historical or novel episodes of abuse during the research study, it is extremely important that facilitators be properly trained on how to respond to disclosures, and how to maintain confidentiality in a group setting. Any research and educational programs that offer dialogue about sexual experiences for people with disabilities need to build in support mechanisms for the likelihood of abuse disclosures (McCarthy & Thompson, 1997).

Summary of effective abuse education approaches. There is significant practical but limited statistical evidence that the *Preventing, Recognizing and Reporting* curriculum, when delivered in its entirety, encompasses effective educational interventions for adults with developmental disabilities. Ideally, this evaluation study will be replicated with a larger sample size, such that there are large numbers of both men and women, and people with a wide range of disabilities to serve as a basis for comparison. However, the current study (in conjunction with research done by others in the same field) does offer some insights regarding ways in which future programs should be run. Accordingly, it is recommended that abuse prevention programs be conducted over the span of weeks or months, to ensure that participants have an opportunity to review, practice and rehearse skills. Regular, short ‘booster’ sessions provided through the year are also recommended, especially if the foundational education is given over a short time frame, as it was in this research. Consideration should also be given to integrating abuse prevention programs with basic life-skill training, rights training, sexual

health education, relationship and boundary literacy. Where possible, natural opportunities to practice the social skills inherent in all these topics should be encouraged.

Measuring Abuse Protection Skills

The current research study and the review of abuse prevention strategies by Bruder and Kroese (2005) both demonstrate that people with developmental disabilities can successfully learn skills that will presumably help prevent abuse. This is supported by the meta-analysis of effective teaching strategies conducted by Doughty and Kane (2010). However, less clear is whether the learned skills produce measurable changes in abuse protection behaviour. There remains considerable debate and confusion about how to accurately measure concepts and abuse protection skills. The prevention programs discussed thus far, including the current study, required development of unique measurement tools. The lack of standardized tools, and the reliance on language skills for those that do exist make accurate measurement challenging, which can present significant threats to validity. It was hoped that the current research study would supplement the available data regarding effective measurement tools. As discussed in the instrument section of the Methods chapter, both measurement tools used for this study were modeled after standardized tools used for children and evaluated for reliability and validity prior to their use. The following discussion will consider the strengths and limitations of the *APCQ* and *APDTC*, as well as suggest improvements and provide recommendations for future research studies to answer the third research question “*is there preliminary evidence that the APCQ and the APDTC are valid and reliable measurement instruments?*”

Assessment of the *APCQ* and *APDTC*. As noted in the Methods chapter, 79% of the tests were conducted with an interviewer and an observer, and both test instruments demonstrated excellent interrater-reliability as well as sound test-retest stability indicating internal validity and reliability. However, both test instruments also had limitations in terms of measuring concepts and skills for people with significantly impaired communication.

The results of each test instrument were converted to percentage score so that comparisons could be made between abuse protection knowledge and abuse protection skills. Comparison of the mean (%) scores of the two test instruments indicated that overall, abuse protection knowledge and attitude, as measured by the *APCQ*, were higher than the abuse protection skills captured by the *APDTC*. As well, participants across all three treatment groups scored the highest on the abuse protection attitudes subscale of the *APCQ*. The questions within this subscale were “forced answer”, three choices with the option of “yes”, “no”, or “I don’t know” and picture cues could be used. The attitude subscale questions measured the participant’s understanding of personal rights to privacy, boundaries and autonomy. These topics have been at the forefront of educational opportunities for people supported and front line workers since deinstitutionalization began in the early 1970’s (Kempton & Kahn, 1991), while mandated abuse awareness has only been in place for Ontario residents since 2011.

An important limitation to the *APCQ* was the reliance on expressive language skills to measure abuse concepts. Although there was a section of the instrument that required the participant to point to a picture that best depicted each type of abuse, the pictures that were used need improvement. It is challenging, for example, to find a

picture that depicts sexual abuse that is clearly different from physical violence, and does not expose the participant to unacceptably graphic images. Ideally, there should be a variety of pictures so that participants do not learn to associate a definition with only one picture. A pool of visual tools that have been vetted, evaluated, and deemed ethically sound would be extremely helpful for agencies across Ontario for assessing knowledge and for teaching purposes.

The lower scores on the *APDTC* were likely due to a participant's limitation in communication as well as understanding. To achieve a high score on the *APDTC*, the participant needed to simulate disclosing abuse by reporting the Who, What, When and Where of each of the five abuse vignettes. Participants who improved their score only slightly were likely able to identify that abuse was occurring, and identified a 'safe' person to go to for help. However, they fell short of being able to accurately describe the abusive scenario. Participants were provided with the opportunity to learn those skills in the IBS group (although not in the control group or the IO group). However, limited communication skills and insufficient time to rehearse or practice could have been factors that impeded improvement on the *APDTC*.

The *APDTC* tool may need to be revised to include a greater weight for correct tasks, and to score tasks with greater precision. For example, participants scored equal points whether they were able to identify the type of abuse in the vignette or whether they were able to describe one safety measure that needed to be taken. Using a basic four-step task analysis may underestimate the behavioural skills required to keep safe as compared to understanding the concept that abuse has occurred.

In this research study, participants were read each vignette and shown a picture to further illustrate the characters and situation. The limitations with this approach are similar to those mentioned for the *APCQ*, namely the reliance on expressive language skills. To help address this, there would be significant benefit in replicating the thesis work of Jessica Bollman (Bollman & Davis, 2009). A pool of between 60 and 100 vignettes that have been vetted, evaluated and deemed ethically sound could be developed. These vignettes only need to briefly demonstrate abuse lures or threats. They should include scenarios depicting:

- male and female victims
- male and female offenders
- sexual, physical, verbal/emotional, and financial abuse and neglect
- strangers and trusted persons as offenders
- unpleasant situations that happen by accident but are not abuse (e.g. accidentally hitting someone when the actor opens the door) and
- consenting romantic relationships

The vignettes could be randomly divided into groups of six or eight with the stipulation that each has an equal number of “abuse” and “not abuse” vignettes. A group could then be randomly selected and used for pretests, posttests, and retest as well as for teaching purposes.

Consideration could also be given to a partnership between one or more Community Living agencies and an academic institution that had a visual arts and film studio. Involvement of adults with developmental disabilities in the development and filming of the visual tools would be beneficial. Production of such tools would begin to

address the gaps in resources required to meet the needs of people with severe developmental disabilities (Mahoney & Poling, 2011).

In summary, there is some preliminary evidence that the *APCQ* and the *APDTC* have good internal validity and reliability. However, the analysis also suggests that the measures are prone to underestimate the abuse protection knowledge and skills for participants with significant challenges in expressive communication, and may therefore be weak in terms of external validity. Improving the visual aids used with the test instruments will help address this significant limitation.

Evaluating abuse protection outcomes. An important assumption of any proposed abuse protection education is that knowledge equates to a reduction in abuse rates. The previous research studies had also indicated that there may be limitations between generalizing knowledge acquisition and actual reductions in abuse rate (Barger et al., 2009; Bollman & Davis, 2009; Doughty & Kane, 2010). Measuring the prevalence of maltreatment for individuals presents significant challenges and determining what factors increase or decrease maltreatment rates adds to these challenges (Horner-Johnson & Drum, 2006). As a result of the complex issues, some researchers have used in-situ training and assessment to validate knowledge or skill transfer to ‘real-life’ situations (Egemo-Helm et al., 2007; Miltenberger et al., 2009). However, ethical issues permeate the discussions about the use of *in-situ* assessment and training in terms of further traumatizing victims of past abuse (Doughty & Kane, 2010). Studies available in the literature indicate that it is quite likely that many of the people participating in research studies have already been abused. As such, there are serious ethical implications associated with subjecting previous victims to abuse lures. As well, previous studies

have used strangers as abuse lures and the literature review also tells us that most perpetrators are people familiar to the victim. Do we then subject adults to abuse lures using a ‘trusted’ person? Even if reassurance and emotional support were provided post *in-situ* training, the damage to their trusting relationship could already be done. Participants also could be re-traumatized and struggle with grief and emotional harm. However, without post-hoc or *in-situ* evaluation, it will be difficult to conclude with confidence that the skills will be transferable to real life situations, should they be needed. Rather, researchers may need to employ ex post facto studies to compare rates of abuse for adults with intellectual disabilities who have received education or training, to those who have not, in order to draw conclusions about the effectiveness of these programs.

Regardless of whether researchers use generalization probes to evaluate protection skills, the literature is sparse about whether or not rates of maltreatment decline as a result of abuse awareness. Only one program could be found that evaluated both knowledge transfer and measures of interpersonal violence post intervention (Ward et al., 2013). This team of Alaskan researchers developed the Interpersonal Violence Interview (IVI) and vetted it with self-advocates before administering it at baseline, post intervention and at 10 weeks following a Dating and Friendship program aimed at reducing intimate partner abuse. The IVI demonstrated strong internal and external validity but has only been trialed with 31 participants to date (Ward et al., 2013). As of yet, there are no wide scale studies that demonstrate violence reductions.

The research study presented here was able to identify positive changes in knowledge and skill without *in-situ* assessments or training. However, as with many other research studies, the larger question of whether or not abuse protection skills

actually equate to reduced rates of abuse cannot be predicted with confidence. As recommended by other researchers, clinical strategies to prevent abuse need to include ongoing training adapted to adults with developmental disabilities (McEachern, 2012). It also needs to include a model that incorporates evaluation and abuse rate monitoring by governmental institutions (McEachern, 2012). Given the extensive focus on abuse prevention at multiple support levels, Ontario is in a unique position to consider the long-term impact that the implementation of Regulation 299/10 has on abuse rates for adults with developmental disabilities. Consideration should be given to longitudinal studies of abuse rates before and after the introduction of this legislation to help answer the question of how best to address the high rates of victimization.

In summary, the parameters within which the study was conducted closely approximated the target population, so generalizations are possible. However, for ethical reasons, *in-situ* evaluations were not conducted, so predictions of any real-life response to abuse lures cannot be made directly from this research and can only be extrapolated. The *APCQ* and the *APDTC* show promise as the basis for standardized tools. However, given the reliance on verbal skills both the *APCQ* and the *APDTC* may underestimate the acquired abuse knowledge and skills for people with significant deficits in communication. The method of measurement was an additional factor that may have contributed to the lack of support for Hypothesis I and limited support for Hypothesis II. The development of visual aids, as recommended earlier, would enhance the properties of the two test instruments and potentially make teaching and testing more accessible for a wider variety of people with developmental disabilities.

Validity of Results

Interpreting the effect of educational treatment allocation and, therefore, teaching strategy, as the independent variable on participants' posttest and retest scores can be difficult due to numerous potential confounding variables such as treatment fidelity between locations, classroom context, timing of education and moderating variables of age, gender and ability. The following section will summarize the factors that contributed to treatment fidelity, as well as factors that limited the support for Hypotheses I and II.

Factors affecting the internal and external validity of the results. The following subsection will review the measures undertaken in this study to improve the validity of the results.

Treatment group allocation. In an attempt to reduce the internal threats to validity of the results, a control group was included in the study design. Participants were stratified by their assigned level of ability and randomly assigned to one of two treatment groups or a control group in order to minimize the influence of ability. It was originally hypothesized that only ability would influence posttest/retest scores, versus the other moderating variables of gender and age. Therefore, stratification only involved participants for the moderating variable of ability. The resulting three treatment groups were, on average, equally knowledgeable on abuse protection skills before involvement in the program. As a result, changes in scores across both of these measures were assumed to be primarily reflective of the training method. Evidence of effective randomization was observed when considering the potential interaction between ability and treatment group allocation. Although ability was an observed main effect for most

posttest scores, there were no identified two-way interactions between treatment group and ability level.

As well, although the level of ability assigned to each participant was based on factors broader than IQ score, the statistically significant difference across all ability levels at posttest results suggest that baseline assessment of abilities had merit. Participants ranked as *higher* abilities scored higher than those with *moderate* or *lower*, and people with *moderate* abilities scored higher than those with *lower* abilities.

Experimenter effect. Since the primary researcher played a significant role in developing the program that was evaluated, research assistants delivered the lessons and administered the test instruments. By distancing the primary researcher from the study participants and the data collection process, experimenter bias was minimized.

Treatment replication. Research assistants practiced delivery of the curriculum content and the administration of the two test instruments. The same pair of research assistants facilitated the same lessons for both instructional treatment groups at both locations and their instruction was randomly monitored to maximize treatment fidelity. Evidence of treatment fidelity was observed by the lack of significant differences for pretest, posttest and retest at both Community Living agencies. Although the researcher could have trained agency professionals to conduct the testing and deliver the program, it would have increased the potential for researcher bias and reduced the consistency of the training.

History. Since the research program spanned four months and was split between two locations, there was a possibility that the results were influenced by the confounding variables of history and time. For example, one group was interrupted by a severe

weather alert that altered the delivery method of the lessons for the IBS group. In order to minimize the influence of time, all treatment sessions for each location were delivered during the same days of the week, with one exception. In this case, the time frame for delivery of the IBS instruction needed to be reduced from 4 short days (3 hours each) to 3 longer days (4 hours each) because of inclement weather, while sessions for the control group and IO group adhered to the planned schedule. Facilitators reduced the number of ‘ice-breaker’ activities and were able to complete the lessons effectively in the altered schedule. Again, evidence of stability despite the effect of history is seen in the one-way ANOVA results, which indicated that there was no statistically significant difference among pretests, posttests or retests between locations.

Attrition. Attrition was not a factor in this research. Due to scheduling conflicts, five participants in the randomized study and four in the case study group were not available for retesting. No one withdrew from the study.

Selection. Although the 74 participants were clustered by convenience, the sample was reflective of the typical population in terms of representing both genders, and a practical range of intellectual capabilities. This provided external validity and supports the idea that results can be generalized to the target population of adults with developmental disabilities. The number of participants was large enough and had a balanced representation of abilities in all three treatment groups, thus providing the opportunity to draw modest statistical conclusions for the general population of adults with developmental disabilities.

Factors influencing the lack of support for hypotheses. With respect to the lack of support for Hypothesis I and the limited support for Hypothesis II, the ability of

the statistical analysis to identify significant differences was influenced by the high levels of variability in scores, and by the sample size. These two factors combined have the potential to mask the experimental effect and may impede differentiation between the three treatment groups. This can be addressed in future research by including more participants and by improving on the current test instruments by incorporating technology or auditory/visual cues and augmentative communication tools for people who face challenges with the ability to express themselves.

Diffusion of treatment. Improvements seen by the control group on the *APDTC* five weeks post intervention are likely the result of confounding variable of diffusion. At both locations, the presence of the research team caused considerable excitement and discussion amongst the people supported and their staff. There was also an unexpected level of discussion amongst the participants themselves, as evidenced by one young man who helped his partner do her homework. Despite the request that formalized training be put on hold for the duration of the study, research assistants also noted a keen interest on behalf of the care providers to see the participants succeed. It is also suspected that extra coaching by family or front-line professionals may have occurred for participants in the control group as well as the two treatment groups. The communication that was given to direct care providers about the study design and the importance of the control group is also a potential concern. The research design was explained in detail to the management teams but the information did not always filter to the front-line care providers. As a result, many front-line staff professionals questioned the value of the person they supported being in a control group, despite assurances that participants assigned to the control group would receive the full educational program at a later date. This may have

played a role in the observation that for all the participants in the randomized study, the Control group had the highest number of people ($n = 3$) whose schedule could not accommodate a time for retesting. As well, front-line professionals may not have been aware that the study involved a retention assessment five weeks later, resulting in educational opportunities with the men in the control group. The encouraging message, however, was that both care providers and the people they supported were enthusiastic about the abuse education.

Timing of educational treatment. The effect of timing may also help to explain why overall posttest and retest scores did not show statistically significant differences between groups. The teaching method for this study was designed to provide the program over a shorter period of time (four days). The short duration of this research provided the advantage of reducing the potential for internal threats, but may have reduced the impact of the treatment. A common characteristic of all the comparable programs discussed is that they were delivered over a long time frame. It is well documented that teaching strategies for people with disabilities are more effective when the concepts are repeated often (Bruder & Kroese, 2005). Many life skills programs, for example, introduce a topic and repeat the concepts and scaffold for each new concept. This is typically done over a course of weeks, not hours. Therefore, it is possible that the experimental design in this program did not allow participants enough time to practice their new skills. This may explain why participants in the IBS group seemed unable to demonstrate the abuse protection skills they learned as effectively as hypothesized. Future research may consider booster lessons or longer duration of treatment intervention.

Instructional methods. It is also possible that the program does not employ enough effective teaching strategies to show improvement in posttest or retest scores in either of the treatment groups. This reveals an opportunity for learning, curriculum redevelopment, and revising the delivery strategy, all of which can be integrated into further research projects. If a program such as the one studied here shows only limited improvement in abuse protection knowledge and skills for participants, it should raise awareness within organizations about the need for even more extensive training or education than is currently undertaken. For example, although providing adults with developmental disabilities informational or educational brochures about abuse currently meets the requirement of abuse awareness as outlined in Regulation 299/10, it is unlikely to enhance the abuse protection skills and therefore have the desired effect of improving safety.

Instrumentation. The specific limitations of the *APCQ* and *APDTC* to capture abuse knowledge and skills were addressed during discussion of the third research question. The *APCQ* and the *APDTC* show promise as the basis for standardized tools. However, they are unable to accurately measure knowledge and skills for people with significant challenges in communication. The development of visual aids would enhance the properties of the two test instruments and potentially make teaching and testing more accessible for a wider variety of people with developmental disabilities.

Sample. The sample of participants in this research study had representation of people with mild, moderate and severe developmental disabilities, as well as including equal numbers of men and women. There was representation from all age groups, 18 to over 65 years old. There were people with health issues including but not restricted to;

epilepsy, cardiovascular disease, cerebral palsy, diabetes and mental health concerns.

However, there was not sufficient representation of people who are medically fragile and technologically dependent or had severe mental health or behavioural issues.

Approximately 95% of the participants were sufficiently independent in their personal care needs that they did not require front-line professionals to assist them during the three to four hours of curriculum delivery time. People who are completely dependent on others for personal care are more vulnerable to abuse, including sexual and physical abuse (Mahoney & Poling, 2011). Therefore, these results cannot be generalized to people with developmental disabilities who have severe medical or mental health issues or for those who require significant personal care support.

Although one of the advantages to this study was using a diverse sample of participants that included both men and women and people with a broad range of intellectual ability, this same quality introduced a significant challenge in terms of statistical analysis. The variability in test scores highlights this limitation. As well, the number of participants with homogenous characteristics was too small to compare to other groups or to the overall group performance. There is a need to conduct research with a diverse sample population such as this one, but future studies should include an even larger sample size and give consideration to higher recruitment of participants with moderate and severe developmental disabilities.

Significance of Research

Research studies have shown that individuals with developmental disabilities are significantly more vulnerable to abuse, and experience maltreatment at rates that are significantly higher than people without disabilities (Hughes et al., 2011, McCarthy &

Thompson, 1997). Politicians, developmental service providers, self-advocates, and families have been working together to improve the quality of life for people with developmental disabilities. Regulation 299/10 aims to address the problem by increasing awareness, improving the quality of services provided for people and their families, educating service providers and the broader community on the abuse risks, and by requiring zero tolerance for abuse. In addition to this multi-pronged approach to risk reduction, there is a need to educate adults with developmental disabilities about abuse including:

- How to prevent abuse,
- How to recognize abuse, and
- How report abuse.

Across the province, there are currently a number of programs and educational tools emerging in response to Regulation 299/10. The existing research available on abuse prevention does not include empirically evaluated curriculum within Ontario. Some, such as the program used in this study, had been evaluated using an action research model but lacked empirical data to demonstrate effectiveness to improve protection skills. It must be emphasized that the programs and tools being developed to meet Regulation 299/10 may still have merit even if they lack empirical evidence. As discussed earlier, there is significant value in the process of developing and implementing abuse education within each agency or across agencies since it improves awareness and draws attention to this very important societal concern.

However, considerable resources, time, and effort are being devoted to abuse education without clear evidence that educational materials improve protection skills for adults with developmental disabilities or, more importantly, decrease the rates of abuse

(Mikton et al., 2014). If service providers turn to research to guide them in their quest for evidence-based curricula, they will (to turn a phrase) “find the cupboard quite bare”.

Most of the research that has been reported to date focused on sexual abuse protection skills has been conducted with women who have mild intellectual disabilities (Doughty & Kane, 2010). Considering that Ontario’s provincial legislation mandates education for all types of abuse and for all adults with developmental disabilities, research was required that included men and people across the entire spectrum of intellectual disabilities. This research study is the first to address the gap in evaluated program for services in Ontario.

The multi-faceted approach to general abuse prevention undertaken in Regulation 299/10 aligns with the recommendations made by Sobsey (2002) in terms of using an “Ecological Model” to address abuse of children and adults with disabilities. However, caution is required with regards to the potential harm for adults with developmental disabilities should too much emphasis be placed solely on the victim to fend off abuse. Parallels can be drawn from the more extensive literature available on the effectiveness of sexual abuse prevention programs for children and adolescents. A primary approach to combat childhood sexual abuse is the use of universal educational programs generally delivered in schools and aimed at potential victims (Collin-Vézina, Daigneault, & Hébert, 2013). This approach intervenes at the level of victim and sometimes influences environmental and cultural factors but has no impact on potential offenders. It is also criticized for placing responsibility for prevention on children (Collin-Vézina et al., 2013, Tutty, 1993). Similar to perpetrators of childhood sexual abuse, adults with developmental disabilities are most often victimized by people in positions of power and trust. Prevention training could place participants in a state of great conflict when it

opposes their everyday environment, thereby making it very challenging to report or even repel abuse (Bruder & Kroese, 2005, Tutty, 1993). Finally, parents whose children have received sexual abuse education falsely assume that their children are now safe (Collin-Vézina et al., 2013). Similar struggles face adults with developmental disabilities and their care providers. Although universal abuse prevention programs are beneficial, it will be important to caution care providers not to assume adults with developmental disabilities are safe from abuse after participation in a program such as this one and to prevent victim blaming should abuse occur after education. In addition, improved care-provider screening methods, increased family and person-centered social supports that reduce isolation and improve self-efficacy, and staff/caregiver education related to abuse will help prevent potential perpetrators from abusing adults with developmental disabilities (Sobsey, 2002, Bruder & Kroese, 2005, Ward et al., 2013).

Clinical implications. Although the results of the statistical analysis offered no support for hypothesis I and only limited support for hypothesis II, there are clinical implications that can be drawn from the observed improvements. First, the results of mixed repeated measures ANOVA which showed statistically significant improvement in abuse related knowledge for the IBS group, suggest that participants have moved along the continuum of abuse protection knowledge and skill acquisition likely because their education included opportunity to practice skills through role-plays, and involved motivating and engaging activities, which helped translate concepts to skills. It is important to view abuse awareness education as a process rather than a single task.

Women in either treatment group outperformed other women in the control group by demonstrating statistically significant improvement in their posttest scores. It is more

likely that women have been exposed to sexual abuse prevention curriculum before and the educational scaffolding allowed for better performance when a new educational treatment was applied. This speaks to the benefit of repeated exposure to the information and the need for frequent booster lessons on the topic of abuse protection.

In terms of practical significance it is important to consider the fact that some participants still learned something even if the treatment groups as a whole did not meet the criteria of statistical significance. Prior to providing any educational treatment, only 20% ($n = 14$) of the participants ‘passed’ the pretest with more than 50%. After treatment, 37% ($n = 26$) of people passed the posttest. Five weeks post treatment, 26% ($n = 19$) people passed the retest. As well, men in the control group significantly improved their performance on difficult topics such as the abuse protection skills captured on the *APDTC* without the benefit of group education. This supports the premise that although knowledge and skills are lost over time, infusing the culture of an organization with abuse prevention topics and strategies may have an effect, even on those who do not actively participate.

Finally, despite the relative improved performance for a few participants with *lower or moderate* abilities, from an overall safety perspective, there may need to be recognition of a threshold of ability, below which a curriculum-based approach to abuse awareness will not be effective. This group of people will require more of a focus on environmental safety measures to be put in place in order to reduce their vulnerability.

Conclusion

The goal of this research project was to evaluate an abuse prevention education program being used in parts of Southern Ontario to teach adults with developmental

disabilities how to prevent, recognize and report all forms of abuse. Two different treatments, involving different amounts of instructional time and different curriculum features were compared to a control group. After comparing results and considering classroom context, the *Preventing, Recognizing and Reporting* curriculum, when delivered in its entirety, represents an effective abuse education program for adults with developmental disabilities. The program utilized well-trained and consistent facilitators to deliver a curriculum that encompassed the evidence-based information, motivation and behavioural skills model in an interactive and engaging manner that participants found helpful. This program has been developed to be easy to use, inexpensive, and comprehensive. It has shown promise, from a practical and statistical perspective, to improve abuse protection skills in adults with developmental disabilities. Participants, especially women, demonstrated improved conceptual knowledge and the skills related to abuse protection at posttest, although erosion of skills was evident five weeks post-intervention.

This is important to the people of Ontario because it provides guidance for the implementation and management of effective and meaningful programs. As a whole, research is nascent that supports effective programs for men and women with wide range of learning challenges across all topics of abuse. The information that is available tends to focus on women and sexual abuse. This study addresses the gap of information regarding what effective programs can look like for a broader audience and on a broader set of topics, while still demonstrating practical significance. Improvements in measurement tools and provision of the education over a longer period of time may enhance future results. Although there have been a number of valuable abuse protection

curriculum and programs developed in Ontario since the introduction of Regulation 299/10, none have been empirically evaluated from a quantitative perspective. This is a key factor that needs to be considered within the overall program evaluation of Ontario's approach to reducing abuse rates in its most vulnerable of its citizens.

Further research is required to develop more accurate measurement tools and to make training materials more accessible for people with severe developmental disabilities. Abuse prevention programs for adults with disabilities should be considered as only one part of an integrated model of risk reduction. Safety should not be assumed until research demonstrates that systemic approaches have reduced the rates of abuse for this vulnerable population.

Appendices

Appendix A

Definition Of Terms (Glossary)

Abuse = Any of the forms of abuse outlined in Regulation 299/10 (sexual, physical, verbal, emotional or psychological, financial abuse and neglect)

“Sexual abuse: Sexual abuse is the unwanted touching of a person’s sexual body parts. The lack of consent is the defining feature. Here it is important to note that the hierarchy makes it impossible for there to be consent between a person with a disability and their care provider. Sexual Abuse is also about the denial of a person’s right to engage in consenting sexual behaviour.

Physical Abuse: Physical Abuse is an act of assault, or a threat of an assault, such as hitting, slapping, and burning that cause or could cause actual physical injury or fear of physical injury

Verbal Abuse: the use of demeaning language and name calling. Negative verbal depictions of disability or attractiveness are also forms of verbal abuse.

Psychological abuse: Whenever constant criticism, insulting, threatening, degrading, humiliating, intimidation or terrorizing of a person occurs, this is deemed psychological abuse.

Emotional abuse: Emotional abuse is the misuse of power, in any way, to cause a person to lose respect for themselves. Psychological and Emotional abuse can also include the demeaning of ones faith or beliefs or the imposition of another’s faith onto the person.

Financial abuse: Financial Abuse constitutes the misuse, misappropriation or restriction of someone’s financial assets for personal gain.

Neglect: Neglect is about the failure to provide the necessities of life such as food, clothing, shelter, care or supervision. People with disabilities, in care, have a right to expect that their basic needs will be met and they will be provided with appropriate supervision for their age and their developmental needs.” (“Quality Assurance Measures,” n.d., p. 7)

Abuse lures = Any described or enacted attempt to engage the participant in an abusive situation

Abuse Protection Skills comprise 1) recognizing a potential or actual abuse lure, 2) saying NO to an abuse lure, 3) leaving the potentially abusive situation or asking the offender to leave and 4) telling someone about the possible abuse .

Abuse Protection Concept Questionnaire (APCQ) = Instrument designed for the present study to measure knowledge related to abuse.

Abuse Protection Decision-Making and Task Analysis Checklist (APDTC) = An instrument designed for the present study to measure behavioural response to abuse.

Behavioural Skills Training (BST) = a model for teaching specific to one set of skills that employs information, modeling, rehearsal, praise and feedback (Miltenberger et al., 2009)

Confederate= a person unknown to participants who will act as a abuse offender and attempt to engage another person in an abuse lure

Control (C) group = a group of participants who acted as a baseline comparison and who received three hours of non-abuse related social skills education. All participants in the C group were provided an opportunity to receive all 10 lessons from the

Preventing, Recognizing and Reporting Curriculum at after all the retests were completed.

Curriculum = in this study, a 10-lesson curriculum entitled *Preventing, Recognizing and Reporting Abuse* written by the Abuse Prevention Education Committee of Waterloo Region.

Developmental disability (DD) as defined by the Ontario Ministry of Community and Social Services:

“A person has a developmental disability for the purposes of the this Act if the person has the prescribed significant limitations in cognitive functioning and adaptive functioning and those limitations,

- (a) Originated before the person reached 18 years of age;
- (b) Are likely to be life-long in nature; and
- (c) Affect areas of major life activity, such as personal care, language skills, learning abilities, the capacity to live independently as an adult or any other prescribed activity” (Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act, 2008 . definition (3).1) Available at http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_08s14_e.htm

Effective Strategy-Based Curriculum for Abuse Prevention and Empowerment (ESCAPE) training= a method of teaching abuse protection skills that provides information and step by step skills necessary to analyze a situation and problem solve a safe solution (Khemka et al., 2005).

Information Only (IO) group= In the research design, this term defines the group of adults receiving the truncated curriculum. The IO group will receive three essential lessons from the curriculum, which are focused on knowledge transfer.

Information and Behavioural skills (IBS) group- In the research design, this term defines the adults receiving the full 10 lesson curriculum

Intellectual disability (ID) = IQ below 70 with diminished cognitive functioning observed before the age of 18.

Mild ID = IQ score between 50 and 70

Moderate ID = IQ score between 35 and 55

Severe ID = IQ score between 20 and 40

Profound ID = IQ score below 25 (Fletcher, 2007, p. 65)

Quality Assurance Measures (QAM) – Term used to refer to Regulation 299/10 under the Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act, 2008. Mandatory abuse awareness is one of the quality assurances measures outlined in the legislation.

Appendix B

Preventing, Recognizing and Reporting Abuse Curriculum Introduction and Lesson

Outline

Meeting Quality Assurance Measures Standards

Preventing, Recognizing and Reporting Abuse Education

for People Supported

By the

Abuse Prevention Education Committee of Waterloo Region 2011

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Background

In late 2010, the Ministry of Community and Social Services introduced “Regulation 299/10: Quality Assurance Measures (QAM)” which indicated that education about abuse be provided to employees, volunteers, board members, and of course people with a developmental disability. The Waterloo Sexual Health and Developmental Disabilities Committee recognized the need for a curriculum to provide agencies with accessible abuse prevention, recognition and reporting strategies that could be taught to people receiving services and supports. The Abuse Prevention Education committee was created to develop this curriculum.

Purpose

This document focuses on the needs of people who receive support from Developmental Service Agencies. It is not necessarily a panacea of abuse prevention strategies, but rather a guideline that provides information specific to abuse and allows opportunity for discussion and further learning. Additional education regarding healthy relationships, sexual health, self-esteem, self-defense and rights and responsibilities are strongly recommended.

Primary Goals for this Curriculum

- Easy to use with well organized lesson plans,
- Flexible and portable in the format and timing of education,
- In-expensive with easy to access materials,
- Kinesthetic with a variety of learning styles embedded in the lesson plans,
- Interesting and engaging for the participants,
- Sensitive to victims of abuse that may be attending the education, and

- Adaptable to participants with a variety of abilities including those who have significant impairments in communication, but with enough learning opportunities to challenge and engage those with milder disabilities.

Secondary Goals for this Curriculum

- Education and awareness of employees
 - Increased awareness about abuse and how to respond to it
 - Increased comfort when discussing abuse with the people they support
- Tools for tracking progress, celebrating education and evaluating learning

Description

The following curriculum is divided into three main sections.

1) The introduction provides an outline of each lesson (Table 1) including the goal, purpose and description of the lesson plan, and recommended time required for education. Also included in this section are instructions for using the curriculum, determining group format and responding to abuse disclosures.

2) The body of the curriculum is composed of 10 lessons that progressively focus on preventing, recognizing and reporting abuse. The lessons follow both QAM guidelines and those standards suggested in the QAM training videos and handouts. They also adhere to the Ministry of Health guidelines for providing sexual health education by using the Information, Motivation and Behavioural skills model of education and curriculum design.

3) An evaluation tool that can be used to assess learning and track participation in training and education, as well as a certificate of achievement. A list of resources is provided at the end of the evaluation tool.

Detailed Instructions

- It is recommended that when possible, each agency consider having both a male and female abuse prevention facilitator. This can help alleviate discomfort related to talking about the private parts of the body. Abuse prevention education should always be completed with at least two facilitators in order to best meet the needs of the individuals and the group, particularly where there may be abuse disclosure.
- Agencies need to consider whether or not information is sent home to parents/guardians or substitute decision makers about the training being provided. QAM mandates that agencies be required to offer training and education about abuse to the people they support but consideration must be given to whether or not the people supported (or their Substitute decision makers) want or agree to attend the training. There are several posters, worksheets and reading material in this curriculum that can be given to people in service in lieu of the more formal training, if they choose not to participate.
- The curriculum is best delivered to groups of 6 to 10 participants at a time in order to achieve optimum participation and learning. However, with the appropriate modifications, it can be used with groups as small as 4 and as large as 20. Many of the concepts taught in this program are reinforced with social skills and therefore best suited for group learning. However, should you choose to work with some of the

people you support on a 1: 1 basis, many of the tools and worksheets can aid in your discussions.

- It is recommended that groups include both verbal and non-verbal participants as needed. Although learning can't always be accurately measured with people who don't use words to communicate, the hope is that by observing and listening to other participants it will still be a valuable opportunity for learning.
- It is highly recommended that the lessons be taught in the order presented in the curriculum since each lesson builds on skills and ideas from earlier lessons. Lesson 7 (Decision-making) is probably the most complex lesson and depending on the group, it may need to be utilized in a different manner. This is not to say that the decision making lesson is not important but some participants may not have the ability to choose whether or not they want to disclose abuse. In this case, for example, the facilitators could simply ask the participants to identify trusted people that they could talk to if they suspect abuse and inform them of what happens next. This is essentially following the first vertical line on the decision tree with the corresponding lesson guidelines. Some of the lessons do have specific adaptations to simplify the topic.
- Use the curriculum outline in Table 1 of the Introduction, to help plan your timing, identify the number of facilitators required, and to assess the group format.
- Feel free to repeat and review any lesson if required.
- Each lesson plan has an evaluation tool that the participants complete. Use their feedback to improve future education and training.

- Time frame for delivery has 3 options:
- **One full-day training with all 10 lessons:** This timeframe is best suited to larger groups with similar learning styles, good verbal skills, and who can complete homework relatively independently.
- **Seven one-hour sessions spread out over several weeks:** Ideal for almost all group types. This format allows for homework time and is well suited for those participants who may have trouble staying engaged for longer than one hour.

The seven sessions would be as follows:

- Lessons 1 and 2
- Lesson 3
- Lesson 4
- Lessons 5 and 6
- Lesson 7
- Lesson 8
- Lessons 9, 10 and evaluation/assessment

2. **Two half-day sessions with at least one week off in-between to complete homework tasks:** This format still provides time for homework but is not as demanding as a full day workshop. The lessons could be grouped as follows:

- Day 1- Lessons 1 to 6
- Day 2- Lesson 7 to 10 and the evaluation/assessment

- All participants should be provided with a Certificate of Achievement at the end of the education, and with every refresher/review.
- Follow the instructions in the Evaluation section for completing the assessment tool.
- Ultimately, however the writers would like you to view the curriculum as a tool box that you can manipulate and adapt to meet your own specific needs. For some agencies or some of the people you support you may want to touch only on the basics which would be defining abuse (lesson 2), setting boundaries (lesson 3) and developing a safety plan (lesson 9). For others however, who are in high risk environments or situations, you will want to take the time to review all the lessons AND include more information on sexual health and self-esteem to truly address abuse prevention, recognition and reporting skills. Or alternatively, after the basic lessons have been covered, individual lessons can be removed and discussed at house meetings or during a lunch and learn at work or day programs. After all, the concepts presented in this curriculum are simply good life skills to learn.

Suggestions about the Facilitator

The Abuse Prevention Facilitator should be able to:

- Speak comfortably in front of groups,
- Think on their feet,
- Role play and facilitate group discussions
- Respond to abuse questions or concerns calmly and directly.

They should also be able to redirect the group when necessary in order to stay on topic. Facilitators should remain open to dialogue. A good sense of humour is also an asset!

During the delivery of this education in a group setting, it is important that facilitators encourage respect for any and all views expressed by participants. However, the facilitators also have to be adept at discouraging the sharing of personal experiences during the training especially if it is a large group setting. This is not to say that personal stories can't be shared but they would be more appropriate in a smaller setting after the lesson. It may be very important for participants to talk about their own abuse experiences but they should be gently refrained from doing so, in order that personal information is not disclosed in the group setting. Instead, facilitators should encourage participants to spend time after the lesson talking about their abuse situation with either the facilitator or another trusted adult.

If during the delivery of education, a participant discloses abuse or suspected abuse that is new or has never been disclosed before, one facilitator must take the participant aside from the group. Without asking leading questions, the facilitator will need to determine if there is cause to suspect a criminal offense and then discourage any more discussions until an investigation has occurred. The other facilitator should continue with the lesson with the remaining group members. It is for this reason that team teaching is so important. **Facilitators must know and follow their agency policy regarding disclosure of abuse or suspected abuse including who contacts the police.**

If the facilitator is not sure whether the situation constitutes abuse or a criminal offense, they should immediately seek out assistance from their management team. Facilitators should also be mindful of the fact that participants may be afraid, confused or concerned about the disclosure. Although further discussions about the abuse should not take place until the investigation has been completed, the facilitator can still provide comfort and reassurance. Using the phrases ... “I am sorry that this happened to you”, “I am glad you told me”, and “I am going to get you help”, can be very reassuring to the participant after an abuse disclosure.

Finally, it is recommended that facilitators and managers of homes take a tour of the Sexual Assault Treatment Centre located at either St. Mary’s or Cambridge Memorial Hospital so that they are better prepared to support victims of sexual assault.

Table 1: Curriculum Outline

Lesson	Goal	Purpose	Description
1. Identifying Yes/No feelings Time Required= 20 minutes	Participants will be able to identify at least one type of touch that gives a person a 'Yes feeling' and one type of touch that gives a 'No feeling'.	Provides a common language for participants and facilitators to use when discussing abuse.	<p>Facilitator helps participants list all the ways that people touch each other.</p> <p>Facilitator guides participants through a visualization activity to help them create a list of Yes and No feelings.</p> <p>Facilitator relates these two categories back to touches and how they can invoke either Yes or No feelings.</p> <p>Facilitator and participants practice saying NO to touches that give a NO feeling and then use Yes/No feelings throughout the remaining lessons to describe how touches and experiences give either a Yes or a No feeling.</p>
2. Abuse Definitions Time Required= 30 minutes	Participants will be able to use common language to define at least two types of abuse.	Provides an opportunity for participants to learn a common language in order to talk about different types of abuse. Participants will have access to terminology but more importantly will have a discussion about what different types of abuse might look like so it can be identified in real-life situations.	Facilitator will use the game developed in PowerPoint as well as three worksheets to help the participants identify the various types of abuse. The game is based on the Jeopardy game show.

Lesson	Goal	Purpose	Description
3.Boundaries 3A: Public vs Private Time Required= 15 minutes	Participant will be able to identify at least two objects/places as being either private or public.	Provides the participants with an opportunity to identify objects and places that are private. This will help empower them with the right to privacy.	A card game is used to sort objects and places into two categories that identify them as either public or private
3.Boundaries 3B: Private parts of the body Time Required= 15 minutes	Participant will be able to identify at least two private parts of the man or women's body.	Provides an opportunity for the participants to recognize that they are in control of their body and that they have the right to privacy.	The facilitator uses a card game to assist participants with sorting parts of the body into two categories that identify them as either public or private. The facilitator will mediate a discussion that helps the participants identify when it is important for a person to allow touching on the private parts of the body (i.e., health reasons).

Lesson	Goal	Purpose	Description
3.Boundaries 3C:Relationships Time Required= 15 minutes	The participants will be able to identify at least one person in their life that can be placed in the green hug circle, one that can be placed in the yellow handshake circle and knows the definition of the word stranger. The participants will be able to identify who goes in the sweetheart spot on the circle diagram.	Provides a visual tool that will help the participants learn social boundaries and simple relationships. Also provides a common language for both the participant and facilitators when describing relationships.	The facilitator will use an adapted Circle's® diagram and assist participants with putting the names of family, friends, sweethearts, neighbours, co-workers and support staff into the appropriate circle boundary. The definition of stranger is reviewed and safety rules about strangers discussed.
4.Assertion 4A: Definition Time Required= 15 minutes	The participant will be able to describe what it means to be assertive.	Provides participants with the opportunity to learn key concepts related to assertion, and when necessary, helps them respond to situations in an assertive manner.	The facilitator will use Handout #4-1 to relay key points about what it means to be assertive. Participants will then complete a take home quiz that will help them to identify whether they tend to respond assertively to situations or not.

Lesson	Goal	Purpose	Description
<p>4.Assertion 4B: Defining Communication styles Time Required= 15 minutes</p>	<p>The participant will be able to define at least one of the following communication styles (passive, aggressive or assertive) and how to use it in a scenario correctly.</p>	<p>Provides information about the three common communication styles (passive, aggressive and assertive), and then provides the participants with an opportunity to communicate more assertively using everyday scenarios or situations.</p>	<p>The facilitator will define the terms passive, aggressive and assertive and use examples.</p> <p>Slides with pictures accompany each definition.</p> <p>The facilitator will then use scenarios to demonstrate how communication styles can vary.</p> <p>Participants will then practice responding assertively to different scenarios.</p>
<p>4.Assertion 4C: "I statements" Time Required= 15 minutes</p>	<p>Participants will communicate at least one "No feeling" in an assertive way using the "I Statements" format.</p>	<p>Provides participants with a communication tool that can be used to assist them in responding to a person whose actions are evoking a "No feeling". The "I Statement" allows a participant to focus on feelings, rather than placing blame.</p>	<p>Facilitators will describe what "I statements" are. A list of "yes" and "no" feelings and actions will be generated or reviewed from previous lessons. Participants will have an opportunity to use these feelings/actions in "I statements" to communicate assertively.</p>

Lesson	Goal	Purpose	Description
<p>4.Assertion</p> <p>4D: Body language</p> <p>Time Required= 15 minutes</p>	<p>Participate will be able to communicate a “No feeling” two different ways using only body language.</p>	<p>Provides an opportunity for both verbal and non-verbal participants to practice assertiveness skills using body language.</p>	<p>Facilitators will define body language and then have participants engage in a personal space exercise to show how everyone’s personal space boundaries are different.</p> <p>Facilitators will help participants identify the feelings that may come up when someone invades their personal space.</p> <p>Opportunity will be provided to practice body language and ‘I statements’ as a means of communicating a “NO feeling”.</p>
<p>5.Rights and Responsibilities</p> <p>Time required= 25 minutes</p>	<p>Participants will be able to identify 3 rights and the accompanying responsibilities that go with those rights as they relate to abuse definitions.</p>	<p>Provides an opportunity for participants to understand that rights are reasonable expectations that people have about how they are to be treated and that responsibilities are the ways that you should behave (things you should do) to respect the rights of others and yourself.</p>	<p>The facilitator will present a matching game that uses two groups of 5 coloured cards. One group identifies Rights while the other group identifies the Responsibilities. The facilitator will assist the participants in matching the appropriate responsibilities with the rights.</p>

Lesson	Goal	Purpose	Description
<p>6.Recognizing Abusive Situations</p> <p>Time Required= 25 minutes</p>	<p>Using the Stop, Go or Maybe So! Board game, participants will be able to categorize scenarios as either:</p> <ol style="list-style-type: none"> 1. A situation that gives them a NO feeling (possibly abusive) 2. A situation that gives them a Yes feeling (possibly safe) 3. A scenario that is confusing (maybe so) 	<p>Provides an opportunity for participants to think through ‘pretend’ situations and decide if they have a Yes, No or Maybe So feeling using a Stoplight analogy game board. Participants are also given the opportunity to decide how best to respond to that situation, and they will practice defining the type of abusive situation they have encountered.</p>	<p>The facilitator will use the ‘Stop, Go or Maybe So!’ game as a discussion tool for recognizing and responding to various healthy or unhealthy scenarios with a focus on sexually abusive situations. The ‘Stop, Go or Maybe So!’ game helps participants to categorize situations as Red Light (abusive or No feeling situations), Green Light (safe or Yes feeling situation) or Yellow Light (maybe so or confused feelings). The facilitator then guides the participants through a decision making process to determine the best course of action to take. If they have encountered a ‘Red Light’ or No feeling situation, the facilitator will assist the participant in deciding whether the scenario constitutes abuse and if so, what kind of abuse it was (reinforcing definitions from Lesson 2).</p>

Lesson	Goal	Purpose	Description
7.Decision Making Time Required= 45-60 minutes	Participants will be able to identify and choose between the possible actions to take when they know that some form of abuse has occurred.	Provides an opportunity to guide participants through a decision making process when choosing whether or not to disclose an abusive situation. The aim is to emphasize that disclosure to a trusted helper is the best way to deal with abuse and keep a person safe. The facilitator will provide a list of trusted helpers for the participants and they will learn about rights and responsibilities surrounding disclosure, and have an opportunity to practice assertion skills.	Using the visual Decision Tree tool, the facilitator presents and discusses the following concepts: <ul style="list-style-type: none"> • Who to tell – any confidant may inform police of disclosures of abuse although with some, it's required. • What actions may be taken by trusted helpers or the police after the disclosure of abuse. • The consequences of not disclosing abuse. • Information for participants on after-care and ways to keep themselves safe after abuse has occurred.

Lesson	Goal	Purpose	Description
8.Skill Development- Recognizing and reporting Abuse: 8a) Financial Forum theatre Time Required= 25 minutes	The participant will be able to identify financial abuse as it occurs in a forum theatre style scenario.	Provides the participants with an opportunity to use what they have learned in the previous lessons to identify and respond to situations where someone is trying to take advantage of another person financially.	The facilitators will act out the script provided in Handout 8-1, in which an example of financial abuse is portrayed. Participants are then asked to re-write and re-enact the scene so that the abuse is prevented, stopped or reported. The participants have control over how the story is re-written or re-played. If necessary, the facilitators can provide assistance with this exercise.
8. Skill Development- Recognizing and reporting skills: 8b) Neglect Role-play Time Required=20 minutes	Using a role-play scenario, participants will be able to recognize neglect and learn how to ask for help.	As the participants gain knowledge about abuse, the role-playing opportunities help to solidify the role of assertive communication, and the skills needed to effectively necessary report the abuse.	The facilitators will have the participants role-play scenarios. When necessary, coaching will be provided on how to respond to abuse by a trusted person.

Lesson	Goal	Purpose	Description
9.Safety Planning Time Required= 20 minutes	Participants will be able to identify at least one place to go, one activity to do, one thing to say, and one person to talk to in order to get help if they find themselves in an abusive situation.	Provides an opportunity for participants to consider, discuss and document solutions for establishing short and long term safe zones in response to abuse, especially those types that put them in immediate danger (sexual, physical or psychological abuse).	The participants will be given a worksheet that provides a spot for them to list: <ul style="list-style-type: none"> • “Places that I feel safe”, • “Things I can do to feel safe”, • “Things that I can say to feel safe”, and • “People I can talk to that make me feel safe”. There is also a circle in the middle of the worksheet. Depending on the group, the learner can draw him or herself in the circle, write their name, or draw how they feel when they feel safe.
10.What is NOT abuse Time Required= 10 minutes	Participants will be able to identify 2 situations where they have a NO feeling but the situation does not constitute abuse.	Provides an opportunity to recognize that not all negative situations mean abuse is occurring. Everyday people are faced with situations that are unpleasant or give rise to a NO feeling but that doesn't mean the problem is abuse and these situations are handled differently than ones that are abusive.	Facilitator will read out scenarios provided, some of which fall under one of the abuse definitions they have learned already and some of which are not pleasant but not abusive either. Using signs ‘ Abuse ’ or ‘ NOT abuse ’ participants will hold up the sign that they feel fits the scenario. If the situation does fall under an abuse definition, participants are asked if they can identify the type of abuse.

Appendix C

Baseline Data Collection Form

Baseline Information

Coded Identity _____

The information gathered in this section will help the researcher to sort people into educational groups. The researcher will have groups that have a mix of gender, age and abilities.

Age	18-25	25-35	35-45	45-55	55-65	over 65
Tick the correct box						

Gender	Male	Female	Transgender
Tick the most correct box			

Residential support	24 hour residential support	Family home or family home program	SIL	Independent or with a service coordinator only
Tick the most correct box				

Expressive communication	Primarily uses gestures, body language and facial expressions	Gestures, body language, facial expressions and uses an augmented communication device	1-2 word phrases	Complete sentences
Tick the most correct box				

Written communication	Does not write	Can write name and common words	Complete sentences
Tick the most correct box			

Reading	Does not read	Can read name and common words	Complete sentences
Tick the most correct box			

Level of disability	Mild	Moderate	Severe	Unknown
Tick the most correct box				

Appendix D

Abuse Protection Concept Questionnaire

Identity Code: _____ Date: _____

Interviewer name: _____ Location _____

Instructions: Read the following questions to your participant and record verbatim their response using words and/or body language or gestures in the answer column. After the questions are completed, score the responses.

Part 1		Score
Unstructured Question		
1. What is sexual abuse?	Record answer verbatim	
0 point if no answer or responds with I don't know 1 point if the answer described inappropriate sexual touching/ touch on the private part of the body 2 points if the answer included an intent comment or non-consenting comment (i.e., forced sex, or touching the private parts of the body when it's not wanted). 3 points for an answer that captures the definition as: someone touching the private parts of the body without consent AND/ or forcing another person to look at or touch their private parts when they don't want. Score=maximum 3 points		score allotted
2. What is physical abuse?	Record answer verbatim	

<p>0 point if no answer or responds with I don't know</p> <p>1 point if the answer included an example using one or two words like hit or punch</p> <p>2 points if the answer included an intent comment like being beat up for no reason or spanked because of something done wrong.</p> <p>3 points if the answer described the complete definition of- someone hitting or hurting you or threatening to hit or hurt you in any way</p> <p>Score=Maximum 3 points</p>	<p>score allotted</p>
<p>3. What is emotional or verbal abuse?</p>	<p>Record answer verbatim</p>
<p>0 point if no answer or responds with I don't know</p> <p>1 point if the answer gave an example such a being called a name or yelling</p> <p>2 points if the answer included an intent comment like being yelled at because of my skin colour or disability</p> <p>3 points if the answer closely reflected the definition of a person in a position of power or trust causing emotional harm by yelling, berating, name calling or racist comments.</p> <p>Score=Maximum 3 points</p>	<p>score allotted</p>
<p>4. What is financial abuse?</p>	<p>Record response verbatim</p>
<p>0 point if no answer or responds with I don't know</p> <p>1 point if the answer gave an example such as taking my money</p> <p>2 points if answer included a lack of consent comment- like using or taking my money when I did not give permission</p>	<p>score allotted</p>

3 points if the answer closely reflected the definition of someone else using my money for their own benefit and without my permission Score=Maximum 3 points		
5. What is neglect?	Record response verbatim	
0 point if no answer or responds with I don't know 1 point if the answer described an example like ignoring, or not paying attention 2 points if the answer included an intent comment like not getting medicine when it's needed or food when a person is hungry 3 points for providing an answer that closely reflects the definition –failing to provide the necessities of life, like food, shelter, medication and water. Score=Maximum 3 points		score allotted
Total score of unstructured questions:		/15

Part 2 Structured questions	Read the question record response. Score after completion	score
<p>1. When somebody hits you and hurts you on purpose, what type of abuse is this?</p> <p>Verbatim Response</p>	<p>1 point for the correct answer of physical abuse</p> <p>0 for DK or incorrect answer</p> <p>(fighting is an incorrect response)</p>	
<p>2. When somebody uses your money to buy themselves something but you didn't say it was OK, what type of abuse is this?</p> <p>Verbatim Response</p>	<p>1 point for correct answer financial abuse/stealing or robbery can be accepted as correct responses</p> <p>0 for DK or incorrect answer</p>	
<p>3. When somebody touches the private parts of your body and you didn't say it was OK what type of abuse is this?</p> <p>Verbatim Response</p>	<p>1 point for correct answer of sexual abuse or sexual assault or rape</p> <p>0 for DK or incorrect response</p> <p>(having sex is an incorrect response)</p>	
<p>4. When somebody constantly makes fun of another person or puts them down by calling them names or yelling, what type of abuse is this?</p> <p>Verbatim Response</p>	<p>1 point for a correct response of verbal abuse, but emotional or psychological abuse are also correct answers.</p> <p>0 for DK or incorrect response</p>	

<p>5. When somebody needs help getting food, or physical care and medical support, but their care provider (staff or parent can be used) doesn't help them, what type of abuse is this?</p> <p>Verbatim Response</p>	<p>1 point for answer of neglect</p> <p>0 for DK or incorrect response</p>	
<p>8. Show the participant all 5 abuse pictures. Ask them to point to the picture that best illustrates (shows) each of the following:</p> <ul style="list-style-type: none"> a. Physical abuse b. Verbal abuse c. Sexual abuse d. Financial abuse e. Neglect 	<p>Record if they pointed to the right picture-</p> <p>Circle the definition they were able to point to correctly and crossing out any that they're wrong. Score a Maximum of 5 points.</p>	
<p>Total score structured questions</p>		<p>/10</p>

<p>Part 3- Attitude questions</p> <p>Read question and ask participant to respond with Yes or No</p> <p>May use picture prompts for Yes, NO or DK</p>	<p>Circle participant response and score later. I point is awarded for each correct response. The correct response is in bold.</p>	
1. Are you the boss of your body?	<p>YES</p> <p>NO</p> <p>DK (didn't answer or don't know)</p>	
2. Can anyone be a victim of abuse?	<p>YES</p> <p>NO</p> <p>DK (didn't answer or don't know)</p>	
3. Is it ok for you to touch the private parts of a staff's (or relatives) body?	<p>YES</p> <p>NO</p> <p>DK (didn't answer or don't know)</p>	
4. If a person needs help in the bathroom is it ok for a staff/relative to help clean the private parts of the body?	<p>YES</p> <p>NO</p> <p>DK (didn't answer or don't know)</p>	
5. Your friend doesn't have money for a coffee when you're out, is it your choice whether you buy him/her coffee or not?	<p>YES</p> <p>NO</p> <p>DK (didn't answer or don't know)</p>	
6. If you have a rash on the private parts of your body is it ok for a doctor to look at it?	<p>YES</p> <p>NO</p> <p>DK (didn't answer or don't know)</p>	

7. If you did something wrong or broke a rule is it ok for a relative or staff person to yell at you and call you names?	YES NO DK (didn't answer or don't know)	
8. If you did something wrong or broke a rule is it ok for a relative/staff to tell you what you did wrong and ask you to apologize?	YES NO DK (didn't answer or don't know)	
9. Do you know your feelings better than anyone else?	YES NO DK (didn't answer or don't know)	
10. If a touch gives you a NO feeling is it ok for you to keep it secret?	YES NO DK (didn't answer or don't know)	
11. If a touch gives you a NO feeling is it Ok for you to say NO?	YES NO DK (didn't answer or don't know)	
12. Is it ok to say YES if you like the kisses or touches that your sweetheart (boyfriend/girlfriend) gives you?	YES NO DK (didn't answer or don't know)	
13. If your sweetheart touches you in a way that gives you a NO feeling should you keep it to yourself?	YES NO DK (didn't answer or don't know)	

14. If you did something wrong or broke a rule is it ok for a staff/relative to hit you?	YES NO DK (didn't answer or don't know)	
15. If you did something wrong or broke a rule is it ok for a staff/relative to refuse to give you supper?	YES NO DK (didn't answer or don't know)	
16. If you did something wrong or broke a rule is it ok for your TV or computer time to be taken away?	YES NO DK (didn't answer or don't know)	
17. If you did something wrong or broke a rule its ok for staff/relative to take your money away?	YES NO DK (didn't answer or don't know)	
18. If you didn't do a job or a chore is it ok for a relative/staff to say "no allowance this week"?	YES NO DK (didn't answer or don't know)	
19. Is it ok for a staff or relative to touch you without asking your permission?	YES NO DK (didn't answer or don't know)	
20. If a touch is giving you a NO feeling would it be important to tell someone about that touch?	YES NO DK (didn't answer or don't know)	
	sub score	/20
		/45

Appendix E

Permission to Use Children's Knowledge of Abuse Questionnaire

The following is an email from Dr. Leslie Tutty granting permission for the researcher to adapt the Children's Knowledge of Abuse Questionnaire for use on this research project

RE: revised CKAQ

<https://outlook.fanshawec.ca/owa/?ae=Item&t=IPM.Note&id=...>

RE: revised CKAQ

Leslie Maureen Tutty [tutty@ucalgary.ca]

Sent: Wednesday, September 17, 2014 9:40 AM

To: Klee, Karen

Attachments: CKAQ Measure Tutty 1995.pdf (604 KB) ; CKAQ Revision III.docx (20 KB)

Dear Karen

I am attaching the CKAQ with instructions. You certainly have my permission to adapt for this important population.

I don't have Sandy Wurtele's scale but you could likely contact her at the University of Denver if she is still teaching there.

Good luck with this.

All the best

Leslie

Leslie M. Tutty, PhD
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Faculty of Social Work
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tutty@ucalgary.ca

Appendix F

Permission to Use “What if Situations Test” and Personal Safety Questionnaire

The following is an email from Dr. Sandy Wurtele giving the researcher permission to adapt the *What if Situations Test* and the *Personal Safety Questionnaire* for use in this project.

WIST assessment tool

<https://outlook.fanshawec.ca/owa/?ae=Item&t=IPM.Note&id=...>

RE: WIST assessment tool

Sandy Wurtele [swurtele@uccs.edu]

Sent: Wednesday, September 17, 2014 9:19 AM

To: Klee, Karen

Attachments: WISTIIIR.pdf (70 KB) ; PSQ.pdf (69 KB) ; KennyWurteleChapterKaufman.pdf (248 KB)

What an exciting project you are embarking upon, and I am more than happy to assist you in any way. First, please consider the WIST (attached); modified to suit your audience. I have also attached my PSQ. Finally, I am attaching a chapter from Kaufman's book reviewing programs and measurement tools. Good luck and let me know if I can be of any further assistance. Sandy

Appendix G

Abuse Protection and Decision-Making Task-Analysis Checklist

Identity Code: _____ Date: _____

Interviewer name: _____ Inter-rater name _____

Instructions for the APDTC

1. Read the story that describes either an abusive or non-abusive situation.
2. Show participants the picture that illustrates the type of touch
3. Ask participants the questions specified and record verbatim their response using words and/or body language or gestures in the answer column. Scoring will be completed by you at the end of the interview and in some cases another member of the team will score as well to compare results.
4. Do not lead or prompt the participant in any way to answer the question. You can reword questions and for individuals who communicate without words, there are picture cues for item C of each abusive situation. Spread the pictures out on the table and ask the participant to point to a picture that indicates their response.

Story One

1. Read the participant the following script.

Sally is a person who lives in a group home. John works overnight at Sally's group home. Lately John has been spending a lot of time in Sally's bedroom usually just talking or making sure she is comfortable. He does special things for her like fold her clothes and clean up her dirty dishes. Last night John came to work and Sally was just getting ready for bed. John asks Sally do something for him in exchange for his help. John asked Sally to play with his penis. John asked Sally to keep the game a secret.

2. Show the picture

3. Ask the following questions

4. Record responses and score later

Question	Response	How to Score	Score
A. Is this abuse?	Circle response Yes or No or DK If the person answered NO skip the next question and go to part c	+1 pt for yes 0 or NO or DK	
B. What type of abuse is this?	Record response	+ 1 for sexual abuse or sexual assault or rape 0 for no answer or DK	
C. What should Sally do right now? (If the participant provided only one action ask if there is anything else she should do before moving to next question)	Record response If the participant identified the need to tell someone, complete part D and E. If the participant did not independently say to tell someone, skip part D and E and score those as a 0	+1 point for describing saying “no” or “stop”. + 1 point for describing Sally leaving the situation or asking John to leave. +1 point for describing the need to tell someone 0 for no answer and skip part D and E	
D. “Who should Sally talk to”	Record Response	+ 1 point for identifying a safe person 0 for dk or no answer and skip part E	
E. What exactly should Sally say? (you can ask participant to pretend	Record Response	+ 1 point for describing the touch + 1 point for identifying	

to be Sally and enact what she should say).		John as the abuser + point for identifying where the abuse occurred + 1 point for identifying when the abuse occurred	
Total score			/10

Story Two

1. Read the participant the following script.

Tom lives with his uncle Fred. Tom works at sheltered workshop (ie Plastic Packaging) and his uncle drives him there each morning. Tom tends to be slow moving in the morning and doesn't like to get out of bed. Sometimes this makes Fred angry because he will be late for work if he can't drive Tom to the workshop first. This morning Tom is still sleeping when its time to go work. Fred is angry when he sees Tom still in bed. Fred starts to yell at Tom. Fred tells Tom he is stupid and lazy and worthless. Fred tells Tom he wishes Tom would live somewhere else. Fred yells at Tom all the way to work.

2. Show the picture
3. Ask the following questions
4. Record responses and score later

Question	Response	How to Score	Score
A. Is this abuse?	Circle response Yes or No or DK If the person answered NO skip the next question and go to part c	+1 pt for yes 0 or NO or DK	
B. What type of abuse is this?	Record response	+ 1 for emotional or verbal or psychological abuse 0 for no answer or DK	
C. What should Tom do right now?	Record response	+1 point for describing saying asking Fred to	

(If the participant provided only one action ask if there is anything else she should do before moving to next question)		stop yelling + 1 telling Fred how this makes Tom Feel +1 point for describing the need to tell someone 0 for no answer and skip part D and E	
	If the participant identified the need to tell someone, complete part D and E. If the participant did not independently say to tell someone, skip part D and E and score those as a 0		
D. "Who should Tom talk to"	Record Response	+ 1 point for identifying a safe person 0 for dk or no answer and skip part E	
E. What exactly should Tom say? (you can ask participant to pretend to be Tom and enact what he should say).	Record Response	+ 1 point for describing the yelling and emotional abuse + 1 point for identifying Fred as the abuser + 1 point for identifying where the abuse occurred + 1 point for identifying when the abuse occurred	
Total score			/10

Story three

1. Read the participant the following script.

Bret lives with his sister Jane. They have a small apartment and Bret gets ODSP and helps pay the rent. Jane keeps Bret's bank card and goes with him when he needs to get money. Jane doesn't let Bret look at his bank receipts or know how much money he has. Jane often tells Bret that he is lucky he lives with her and not in a group home. Today they go to the bank to get Bret some money. Jane asks Bret to take 100.00 dollars out of the bank for lunch and some new clothes for Bret. Jane holds onto the money and when buying clothes, buys herself new jeans and a t-shirt using Bret's money. Jane did not ask Bret's permission. When Bret tries to object, Jane tells him he owes her this for taking care of him.

2. Show the picture
3. Ask the following questions
4. Record responses and score later

Question	Response	How to Score	Score
A. Is this abuse?	Circle response Yes or No or DK If the person answered NO skip the next question and go to part c	+1 pt for yes 0 for NO or DK	
B. What type of abuse is this?	Record response	+ 1 for Financial abuse or stealing 0 for no answer or DK	
C. What should Bret do right now? (If the participant provided only one action ask if there is anything else she should do before moving to next question)	Record response	+1 point for asking Jane to stop taking his money + 1 showing Jane how he feels about her taking money +1 point for describing the need to tell someone 0 for no answer and skip part D and E	

	If the participant identified the need to tell someone, complete part D and E. If the participant did not independently say to tell someone, skip part D and E and score those as a 0		
D. "Who should Bret talk to"	Record Response	+ 1 point for identifying a safe person 0 for dk or no answer and skip part E	
E. What exactly should Bret say? (you can ask participant to pretend to be Bret and enact what he should say).	Record Response	+ 1 point for describing the financial + 1 point for identifying Jane as the abuser + 1 point for identifying where the abuse occurred + 1 point for identifying when the abuse occurred	
Total score			/10

Story Four

1. Read the participant the following story.

Shawn and Kyle work together at a busy office (or say name of workshop). They are both carrying paper and coffee. They do not see each other as they come around the corner and then bump into each other. They both fall down and spill coffee and paper everywhere. Shawn and Kyle both get hurt.

2. Show the picture
3. Ask the following questions
4. Record responses and score later

Question	Response	How to Score	Score
A. Is there abuse in this story?	Circle response Yes or No or DK If the person answered YES skip to the next question and go to part c	+1 pt for NO 0 or yes or DK	
B. If the person said NO ask them why this isn't abuse	Record response	+1 pt for describing an accident 0 for DK or no answer	
C. If the person said this was abuse ask them What type of abuse it was	Record response	-1 for physical abuse 0 for no answer or DK	
Total score =			/2

Story five

1. Read the participant the following script.

Eric lives with his mom and stepdad Mike. They have a dog named Ralph. It is Eric's responsibility to feed the dog and take it out for a walk at least once a day. Lately Eric has been more interested in playing videogames and the dog isn't getting a walk everyday. Mike has told Eric he will take Ralph to the dog pound if he doesn't take better care of the dog. Today it's almost dark and Eric hasn't taken the dog out for a walk. Mike is upset. Mike slaps Eric across the head and pushes him off the couch. He is also yelling that Eric needs to take better care of the dog or he will take a belt to Eric.

1. Show the picture
2. Ask the following questions
3. Record responses and score later

Question	Response	How to Score	Score
A. Is this abuse?	<p>Circle response</p> <p>Yes or No or DK</p> <p>If the person answered NO skip the next question and go to part c</p>	<p>+1 pt for yes</p> <p>0 or NO or DK</p>	
B. What type of abuse is this?	<p>Record response</p>	<p>+ 1 for physical abuse</p> <p>0 for no answer or DK</p>	
<p>C. What should Eric do right now?</p> <p>(If the participant provided only one action ask if there is anything else she should do before moving to next question)</p>	<p>Record response</p> <p>If the participant identified the need to tell someone, complete part D and E. If the participant did not independently say to tell someone, skip part D and E and score those as a 0</p>	<p>+1 point for describing a way to get away from Mike</p> <p>+ 1 for finding a safe place to go</p> <p>+1 point for describing the need to tell someone</p> <p>0 or no answer and skip part D and E</p>	
D. “Who should Eric talk to”	<p>Record Response</p>	<p>+ 1 point for identifying a safe person</p> <p>0 for dk or no answer and skip part E</p>	
<p>E. What exactly should Eric say?</p> <p>(you can ask participant to pretend to be Eric and enact what he should say).</p>	<p>Record Response</p>	<p>+ 1 point for describing the physical abuse</p> <p>+ 1 point for identifying his stepdad as the abuser</p> <p>+ 1 point for identifying where the abuse occurred</p> <p>+1 point for identifying</p>	

		when the abuse occurred	
Total score			/10

Story Six

1. Read the participant the following script.

Frank lives at home with his mom. Frank uses a wheelchair to get around. He needs help to go the bathroom and for many other activities during the day. Lately his mom seems upset with him but won't tell him what's wrong. He is told to go to his room a lot of the time. Frank asks for help to go the bathroom and his mom walks away. Frank tries to use a bottle to pee into but he wets his pants. He asks his mom to help him change his clothes and she says no. Frank's stomach is growling because its lunch time and he hasn't had breakfast yet. When he asks his mom to help him make some lunch she walks away

2. Show the picture
3. Ask the following questions
4. Record responses and score later

Question	Response	How to Score	Score
A. Is this abuse?	Circle response Yes or No or DK If the person answered NO skip the next question and go to part c	+1 pt for yes 0 or NO or DK	
B. What type of abuse is this?	Record response	+ 1 for neglect 0 for no answer or DK	
C. What should Frank do right now? (If the participant provided only one action ask if there is anything else she should do before moving to next	Record response	+1 point if they described Frank telling his mom how the situation made him feel + 1 for finding a safe place to go +1 point for describing the need to tell someone	

question)		0 or no answer and skip part D and E	
	If the participant identified the need to tell someone, complete part D and E. If the participant did not independently say to tell someone, skip part D and E and score those as a 0		
D. “Who should Frank talk to”	Record Response	+ 1 point for identifying a safe person 0 for dk or no answer and skip part E	
E. What exactly should Frank say? (you can ask participant to pretend to be Frank and enact what he should say).	Record Response	+ 1 point for describing the neglect + 1 point for identifying his mother as the abuser + point for identifying where the abuse occurred + 1 point for identifying when the abuse occurred	
Total score			/10

Vignette seven

1. Read the participant the following script.

Joy and her boyfriend Todd live in a SIL program. They both have roommates but hope one day to get married and live together. They often have date nights and time to spend alone together at one of their apartments. Tonight they went to McDonald’s for dinner and then saw a movie together. They are saying good night before Todd takes the bus home. Joy and Todd are hugging each other goodnight. Joy’s hand slips down to Todd’s bum and she gives it a squeeze. Todd says ‘yeah baby’, smiles and pats Joy gently on the behind before he leaves.

2. Show the picture
3. Ask the following questions
4. Record responses and score later

Question	Response	How to Score	Score
A. Is there abuse in this story?	Circle response Yes or No or DK If the person answered YES skip the next question and go to C	+1 pt for NO 0 for yes or DK	
B. If the person said No ask them why this isn't abuse	Record response	+1 pt for identifying this as a consent touch or a touch that gives a Yes feeling	
C. If the person said this was abuse ask them What type of abuse it was	Record response	-1 for sexual abuse 0 for no answer or DK	
Total score			/2
			/54

Appendix H

Permission to Use Assessment Tools by Jessica Bollman

The following is an email from Jessica Bollman granting permission to adapt or use her abuse vignette scenarios and the task analysis format from her thesis for this research project and confirmation from WLU library that her permission was obtained.

From: Jessica Bollman [jessica.r.bollman@gmail.com]

Sent: Tuesday, October 14, 2014 11:00 PM

To: Klee, Karen

Subject:

Hi Karen,

I apologize, but I think I have been sending emails to an incorrect email address for you. The first voicemail you left me with your email address was breaking up a bit, and I have been attempting to send emails to fanshawc.ca. Hopefully I now have the correct address?

Anyway, I have been searching for the videos and have not been able to track them down. I have sent an email to one of my colleagues who helped me edit the videos on his computer, asking if he might have any of them still and I will let you know when I hear back from him.

In the appendix section of my thesis, there is only one sample set of scenarios, but no list of all of the scenarios. My next step is to search through my boxes of documentation that has all of my thesis data sheets, reference articles, etc., which I will have the chance to do tomorrow (Wednesday).

Sorry for the delay, and I will be in touch soon!

Anne Kelly [akelly@wlu.ca]
Sent: Wednesday, November 19, 2014 6:01 PM
To: Karen Klee [klee2570@mylaurier.ca]; Klee, Karen
Attachments: Bollman3.pdf (1 MB) ; Bollman2.pdf (953 KB) ; Bollman1.pdf (2 MB)

FYI
Cheers,
Anne

Anne Kelly BA, MLIS
Outreach & Liaison Librarian
"Not all those who wander are lost". J.R.R. Tolkien

From: Amy Menary
Sent: Wednesday, November 19, 2014 3:59 PM
To: Anne Kelly
Subject: FW: ILL request 8027267

I forgot about the waiting for the author's permission bit.. that is what the hold-up was.

Amy

From: Kaari Leigh Oberg [mailto:koberg@lib.siu.edu]
Sent: November-19-14 3:54 PM
To: Amy Menary
Subject: RE: ILL request 8027267

Here is the thesis, in three separate documents.

Regards,
Kaari

From: Amy Menary [mailto:amenary@wlu.ca]
Sent: Wednesday, October 29, 2014 3:55 PM
To: Kaari Leigh Oberg
Subject: RE: ILL request 8027267

Hi Kaari,

Yes, my user really wants this thesis. Please contact the author for permission to copy. And we will pay your charges.

Regards,
Amy Menary

Appendix I

Participant Feedback Survey

1. Did you enjoy this course? (Please circle one)



yes



so-so



no

2. Was the information in the course easy to understand? (Please circle one)



yes



so-so



no

3. Did you find the information in the course helpful? (Please circle one)



yes



so-so



no

4. Did you learn anything new? (Please circle one)



yes



so-so



no

5. Did you like the activities in the course? (Please circle one)



yes



so-so



no

Comments:

Appendix J

Ethics Approval Wilfrid Laurier University and Fanshawe College

Wilfrid Laurier University Mail - REB approval notification

<https://mail.google.com/mail/u/0/?ui=2&ik=b1f8fdd04d&view...>

Karen Klee <klee2570@mylaurier.ca>

REB approval notification

1 message

REB@wlu.ca <REB@wlu.ca>

Fri, Feb 21, 2014 at 9:04 AM

To: "Ms. Karen Klee (Principal Investigator)" <klee2570@mylaurier.ca>

Cc: "Dawn Buzza (Supervisor)" <dbuzza@wlu.ca>, REB@wlu.ca

February 21, 2014

Dear Karen,

REB # 3958

Project, "Evaluating an Abuse Protection Education Curriculum for Adults who have an Intellectual Disability"

Expiry Date: August 31, 2015

The Research Ethics Board of Wilfrid Laurier University has reviewed the above proposal and determined that the proposal is ethically sound. If the research plan and methods should change in a way that may bring into question the project's adherence to acceptable ethical norms, please submit a "Request for Ethics Clearance of a Revision or Modification" form for approval before the changes are put into place. This form can also be used to extend protocols past their expiry date, except in cases where the project is more than two years old. Those projects require a new REB application.

Please note that you are responsible for obtaining any further approvals that might be required to complete your project.

If any participants in your research project have a negative experience (either physical, psychological or emotional) you are required to submit an "Adverse Events Form" within 24 hours of the event.

According to the Tri-Council Policy Statement, you must complete the "Annual/Final Progress Report on Human Research Projects" form annually and upon completion of the project.

All the best for the successful completion of your project.

Yours sincerely,

A handwritten signature in black ink that reads "Robert Basso".

Robert Basso, PhD
Chair, University Research Ethics Board
Wilfrid Laurier University

/pb

Fanshawe College Research Ethics Review Board

Approval Notification of Proposed Research Involving Staff/Students and/or facilities at Fanshawe College

Protocol Number:	14-10-14-1
Principal Researcher(s):	Karen Klee
Research Protocol Title:	Evaluating an Abuse Protection Education Curriculum for Adults who have an Intellectual Disability
Research Project Start Date:	April 1, 2014
Expected date of termination:	September 1, 2015
Documents Reviewed:	Protocol; Appendices A-K

Based solely on the ethical considerations raised by the research proposed in the application, the Research Ethics Board has completed its Full Board Review of the above Research Proposal and **Approved** the Project on November 13, 2014.

Comments and Conditions:

Please note that the REB requires that you adhere to the protocol reviewed and approved by the REB. The REB must approve any modifications to the protocol before they can be implemented.

Researchers must report to the Fanshawe REB:

- a) any changes which increase the risk to the participants;
- b) any changes which significantly affect the conduct of the study;
- c) all adverse and/or unexpected experiences in the course of carrying out the study;
- d) any new information which may adversely affect the safety of the participants or the conduct of the study.

Researchers must submit a Progress Report annually for all ongoing research projects. In addition, researchers must submit a final report at the conclusion of the project.

ETHICS APPROVAL DOES NOT CONSTITUTE PERMISSION TO CONDUCT THE RESEARCH, AND APPROVAL FOR CONDUCTING THE PROJECT MUST BE OBTAINED FROM THE DEAN OF THE FACULTY IN WHOSE AREA THE RESEARCH WILL TAKE PLACE, OR IN THE CASE OF COLLEGE WIDE SURVEYS THE OFFICE OF INSTITUTIONAL RESEARCH AND PLANNING.

Members of the FCREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the FCREB.



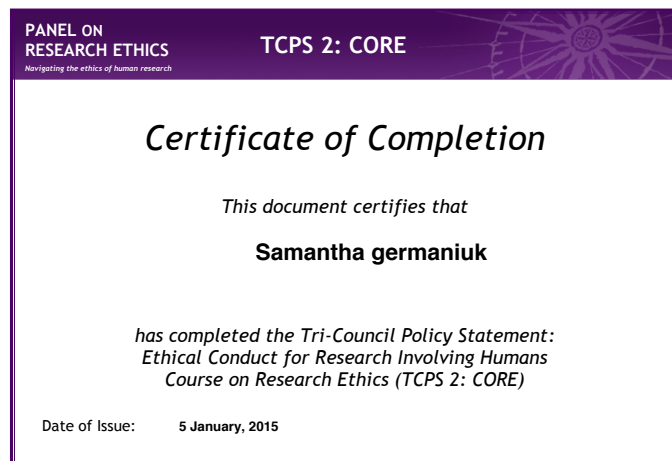
Mr. Otte Rosenkrantz, PhD
Chair, REB
Fanshawe College

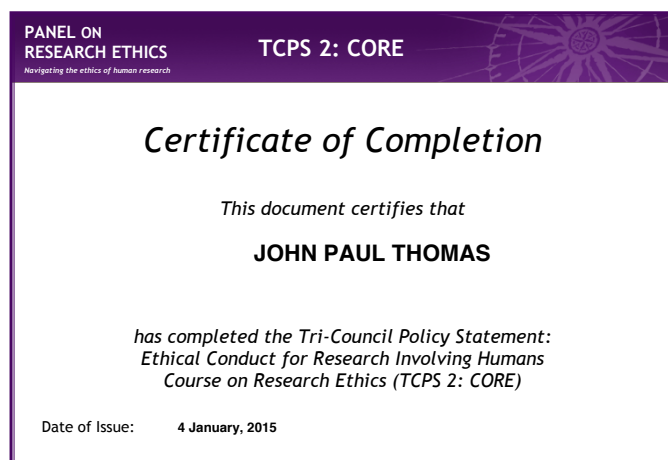
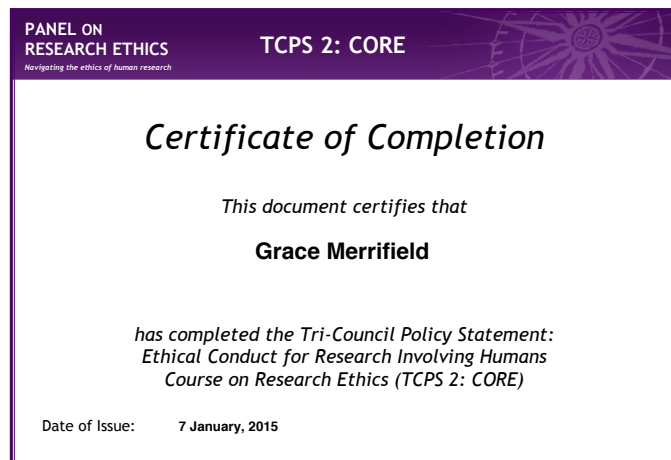
November 13, 2014

Date

Appendix K

Tri-Council Course On Ethics In Human Research Certificates For Primary Researcher And Research Assistants







Appendix L

Participant Consent Form

CONSENT TO PARTICIPATE IN A RESEARCH PROJECT



WILFRID LAURIER UNIVERSITY

Evaluating an Abuse Protection Education Curriculum for Adults who have a Developmental Disability, Principal investigator Karen Klee and Advisor Dr. Dawn Buzza

You have been invited to participate in a research study that will evaluate what adults with a developmental disability can learn about abuse and how to keep themselves using the Preventing, Recognizing and Reporting Curriculum

The purpose of this study is to determine how well adults can learn about abuse.

INFORMATION

You have attended an information session and understand the following study information.

- ☐ You will be placed into 1 of 3 groups with your peers.
- ☐ You will not get to choose the group you are in.
- ☐ You will be asked about 25 questions about abuse and what to do about it. When asking questions, the researcher or your worker will use pictures and videos to help determine how much you already know. None of the pictures have naked people in them. It will take 30 minutes to answer all the questions.
- ☐ One group will not receive any information about abuse, another group will receive a little information about abuse and it will take 3 hours, and the last group will receive a lot of information about abuse and it will take 10 hours.
- ☐ After the group education you will be asked the same 25 questions again to see what you learned.
- ☐ Two months after the education you will be asked the same 25 questions again to see what you still remember.

RISKS and BENEFITS

You have attended an information session and understand the following study information.

- ☐ The education is meant to be fun and entertaining but it still might make you think of a sad situation
- ☐ Sometimes talking about abuse will help you to understand if you have been abused before. This could make you upset or afraid.
- ☐ If you feel afraid or upset the researcher or your worker will help you find someone you trust to talk to about these feelings.
- ☐ If you report abuse during the research study, everything will be done to keep you safe and in some cases this may mean calling the police.
- ☐ You may gain knowledge and skills to recognize and report abuse
- ☐ You may learn more about how to keep yourself safe.

CONFIDENTIALITY

You have attended an information session and understand the following study information.

- ☐ Information about your test results and learning will be kept private. You will be given a number and any information about you will be kept with that number. Your name will never be used in the research report, only your number.
- ☐ Only the test score will be reported on paper. Nothing you say or the researcher writes down about what you said will be reported. Only the mark that you were given for the answer will appear in the report.

CONTACT

If you have questions at any time about the study or the procedures, you may contact the researcher, Karen Klee at klee2570@wlu.ca, and 519-577-9998. This project has been reviewed and approved by the University Research Ethics Board. If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-1970, extension 4994 or rbasso@wlu.ca

PARTICIPATION

You have attended an information session and understand the following study information.

- ☐ You do not have to participate in the research project if you don't want to.
- ☐ You can stop participating in the research project any time you want.
- ☐ You will not get into trouble and no one will be angry with you if you don't want to participate.

FEEDBACK AND PUBLICATION

You have attended an information session and understand the following study information.

- ☐ Once the results are ready to be discussed, they will be shared with you if you would like.
- ☐ You will be given an opportunity to receive any or all of the education you did not have a chance to participate in during the research project but the choice is yours.
- ☐ The researcher will use the information to pass her University course and will share the information with other researchers

CONSENT

You have read or you have had this form read to you and understand the above information. I have received a copy of this form. You are agreeing to participate by signing below. If you don't want to participate, do not sign the form.

Your name _____ Date _____

Investigator's signature _____ Date _____

Ethics information: WLU REB tracking number 3958

Appendix M

Plain Language Information Sheet



Teaching People with Disabilities about Abuse

What works? What doesn't?

Principal investigator Karen Klee and Advisor Dr. Dawn Buzza

In Ontario there is a law that says that all people with a developmental disability must be taught about how to protect themselves from abuse. This is a good law aimed at keeping people safe. However, what we don't know is what is the best way to teach people about abuse and how best do people with disabilities learn this important information? This research hopes to answer these questions.

If you would like to participate in this project there are some important things you need to know first.

1. You will be placed into 1 of 3 DIFFERENT groups with some of your peers.
2. The researchers will choose which group you are put in.
3. It will take 30 minutes to answer about 25 questions about abuse.
4. One group will not receive any information about abuse, another group will receive some information about abuse and the third group will receive some information about abuse, as well as practice good communication and practice reporting 'pretend' situations of abuse.
5. The researchers will then see which group has the best answers when asked the questions again.
6. Two months after the education you will be asked the same 25 questions again to see what you still remember.
7. All of your personal information will be kept private and won't be shared with others

8. You do not have to participate in the research project if you don't want to. And you can stop participating in the research project any time you want.
9. You will not get into trouble and no one will be angry with you if you don't want to participate.
10. If you have more questions the researcher will be coming to your agency to talk about the project and would be very happy to meet with you and answer your questions.

Ethics information: WLU REB tracking number 3958

Appendix N

Information Flyer for Agency Prior to Study Beginning

RESEARCH BEGINS!



WILFRID LAURIER UNIVERSITY

**Evaluating an Abuse Protection Education Curriculum for Adults who have a
Developmental Disability,
Principal investigator Karen Klee and Advisor Dr. Dawn Buzza**

Hello Everyone,

I am very excited that you or someone you support is about to participate in this valuable research project.

The research team consists of six Fanshawe College Students, and myself. Their names are Holly Morris, Fredy Roderiquez, Grace Merrifield, John Thomas, Samantha Germaniuk and Brittany May.

You, or someone your support will be given your schedule and dates for participation. Please let us know if there are any conflicts with the dates that you have been provided and we will see what accommodations can be made. You can contact me at 519-577-9998 or speak directly with a direct support professional (staff) for assistance.

During the research phase we would kindly ask that research participants be excluded from any other **formal** abuse education. We do not discourage discussion about

abuse prevention strategies should questions arise. However, we would like to avoid formal education programs until after the post-tests and re-tests have been completed.

We would like to remind you that after the research phase has been completed, we will be offering everyone in the research study ALL the educational components available in the curriculum. So if you, or someone you supported, was in the control group or short education treatment group they can attend training that will offer all the abuse prevention skills. Even those participants who received the full education can participate again if they so choose. The dates for this education will be provided by your agency.

Finally, it is very important to recognize that just because someone has received formal abuse prevention education, such as this one, there is no guarantee that they have all the skills necessary to protect themselves from all types of abuse. This study will test knowledge acquisition and skill development, which can help reduce risk. However, it does not expose participants to ‘trial’ scenarios or *in-situ* assessments to evaluate if a participant can respond safely to an abuse lure. Therefore, we can not guarantee that study participants will effectively apply the knowledge their learn to real-life situations.

Karen Klee, RN, Master’s Candidate WLU

Ethics information: WLU REB tracking number 3958

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