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Sexual Health Education for Adolescents with Intellectual Disabilities: A Literature Review

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Executive Summary

This literature review aims to consolidate the available academic and grey literature related to sexual health education for adolescents with intellectual disabilities. It is based on the understanding that adolescents with intellectual disabilities, like all individuals, have the right to sexual health education that provides them with the knowledge, skills, and ability to make decisions related to their own sexual health.

Historically, individuals with intellectual disabilities have been excluded from traditional sexual health education programs. This is due to three major issues:

- The perception that individuals with intellectual disabilities are asexual
- The fear that inclusion in sexual health education programming will lead to increased sexual offenses (i.e., teaching individuals with intellectual disabilities about sexual activity will cause them to become perpetrators of sexual aggression)
- The perception that individuals with intellectual disabilities are 'perpetual children' and thus do not desire or think about sex and should not be engaging in sexual activity

Research has shown that these issues are unfounded and that individuals with intellectual disabilities have the right to and a need for sexual health education. That being said, there are still several barriers to achieving this goal.

- Parents and caregivers may be hesitant to bring up sensitive topics and do not know how to broach sexual health issues with their children. Thus, parents may ignore these topics altogether.
- Adolescents may have limited control over their sexual decision-making.
- The challenges associated with intellectual disabilities necessitate adaptations to traditional sexual health education programming.
- There is a lack of effective sexual health education programming available for adolescents with intellectual disabilities, meaning that the education they receive may not be appropriate to meet their needs.

Adolescents living with intellectual disabilities have sexual rights. These include the right to learn about their sexuality, the right to equality and non-discrimination, the right to receive sexual health information and education, and the right to the highest attainable standard of health. Research has shown that individuals with intellectual disabilities have the desire to learn about sexual health issues and often have engaged in sexual activities. Research has also shown that a lack of sexual health education for adolescents with intellectual disabilities can result in a number of negative outcomes. These include:

- a lack of knowledge of sexual health and healthy relationships
- an increased risk of victimization
- an increased risk of unwanted sexual and reproductive outcomes (e.g., unplanned pregnancy, sexually transmitted infections)

In contrast, sexual health education for people living with intellectual disabilities is associated with a number of positive outcomes. For example, education in this area can help to empower individuals with intellectual disabilities to explore their sexuality in positive ways, learn how to have healthy relationships, learn how to make their own decisions related to their sexual health, and reduce their vulnerability to sexual abuse. Education can also help to reduce inappropriate sexual expression. These findings highlight the importance of appropriate and effective sexual health education for this population.

Overall, the current report highlights the need for sexual health education for individuals living with intellectual disabilities. It describes the limited available evidence for what works for teaching sexual health education for this population and provides recommendations for further areas of educational development.

For more information, including a list of references, please refer to the complete report.

1. Introduction

Adolescents with intellectual disabilities, like all individuals, have the right to sexual health education that provides them with the knowledge, skills, and ability to make decisions related to their own sexual health (International Planned Parenthood Federation [IPPF], 2011; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2013). Sexual health education should equip young people with the factual information and tools needed to promote healthy sexual behaviour. According to the World Health Organization (WHO, 2015b), sexual rights include

> the right to equality and non-discrimination; the right to be free from torture or cruel, inhumane or degrading treatment or punishment; the right to privacy; the right to the highest attainable standard of health…; the right to marry…; the right to decide the number and spacing of one's children; the right to information and education; the right to freedom of opinion and expression; and the right to an effective remedy for violations of fundamental rights (p. 1).

Adolescence is the period of transition after childhood and before adulthood, between the ages of 10 and 19 years. Adolescence is a unique developmental period characterized by rapid physical changes, sexual maturation, and significant changes in cognitive, behavioural, emotional, and social skills (Commendador, 2010; Flicker, Guilamo-Roamos, & Bouris, 2009; Kachur et al., 2013). Due to these rapid changes, adolescence is a critical time for the development of healthy dating and sexual relationships (Collins, 2003; Erikson, 1968). Therefore, it is important that all adolescents, including those with intellectual disabilities, receive appropriate and effective education and support related to their sexual health.

Sexuality and sexual health are important interconnected concepts. Sexuality encompasses a variety of physical, emotional, and social interactions and includes sexual beliefs, attitudes, knowledge, values, and behaviour (Travers & Tincani, 2010). Sexual health, on the other hand, is

> a state of physical, emotional, mental, and social well-being in relation to sexuality. [It is] not just the absence of disease, dysfunction, or infirmity. [It requires] a positive and respectful approach to sexuality and sexual relationships and the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence (WHO, 2015a, p. 1).

According to the Canadian Association for Community Living, approximately 2% of the Canadian population has an intellectual disability (CACL, 2015). Intellectual disabilities, also known as developmental disabilities, are "lifelong impairments to a person's ability to learn or adapt to their environment" (CACL, p. 1). According to the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5), intellectual disabilities are diagnosed based on the individual's deficits in adaptive functioning and can range in severity. They involve impairments of general mental abilities, beginning during the developmental period, that impact adaptive functioning in three domains (American Psychiatric Association [APA], 2013):

- Conceptual, including skills in language, reading, writing, math, reasoning, knowledge, and memory

- Social, including empathy, social judgement, interpersonal communication skills, and the ability to make and retain friendships
- Practical, including self-management in areas such as personal care, job responsibilities, money management, recreation, and organizing school and work tasks.

The current literature review examines the available evidence to support sexual health education programs for individuals living with intellectual disabilities. It describes the limited available evidence for what works for teaching sexual health education for this population and provides recommendations for further areas of educational development.

2. Methodology

The current literature review examines the question of "*What are effective practices for sexual health education for adolescents with intellectual disabilities?"* It aims to provide an overview of the available evidence for sexual health education programs for this population, while also providing some context for the issues faced by individuals with intellectual disabilities around sexual health.

To answer this question, a search of the following academic databases was completed: MedLine, PsycInfo, CINAHL, PubMed, and Academic Search Complete. The following search criteria were used:

- Intellectual Disability OR Learning Disability OR Developmental Disability
- Sex* OR Sexual Health OR Sexuality
- Educat* OR Learn* OR Teach* OR Curriculum OR Program*
- Adolescent OR Teen* OR Child*

These search terms were combined using "AND" to ensure that the retrieved results were the product of all of the above terms.

Results were reviewed by title and abstract to determine if they were related to the research question. Only research results in English were reviewed. Duplicates were removed, as were any research results that were not related to the research question. A brief review of the available literature revealed a lack of information to fully respond to the research question. Thus, it was decided to extend the review of the evidence to grey literature, including websites, organizational reports, and program reports. Grey literature searches were conducted using Google and Google Scholar. A similar search protocol as described above was used to determine if any unpublished information was available to support the goals of this literature review. Several websites and programs were revealed through this search. The results of the academic and grey literature searches are summarized and presented below.

3. Need for Sexual Health Education for Adolescents with Intellectual Disabilities

3.1 Adolescents with Intellectual Disabilities have Sexual Desires

Like all adolescents, adolescents with intellectual disabilities experience significant physical, psychological, and sexual changes during adolescence. They have the same sexual needs and desires regarding their sexuality as people without disabilities (Mitchell, Doctor, & Butler, 1978). In a study of individuals with intellectual disabilities, participants across all age groups aspired to marriage and children in the future and thought that people with intellectual disabilities should not be prevented from having relationships (Healy, McGuire, Evans, & Carley, 2009). Adolescents with intellectual disabilities also engage in dating and sexual activity at similar or higher rates than other adolescents (Donenberg, Emerson, Brown, Houck, & Mackesy-Amiti, 2012; Mandell et al., 2008; Murphy & Elias, 2006). These needs and desires continue into and throughout adulthood (Cabe, 1999), including the desire to form relationships, to engage in sexual contact, and to learn about sexuality and sexual health (Kelly, Crowley, & Hamilton, 2009; McCabe, 1999; Siebelink, de Jong, Taal, & Roelvink, 2006).

3.2 Limited Knowledge Regarding Sexual Health

Like their non-disabled peers, adolescents with intellectual disabilities participate in sexual activities. However, without appropriate information and education, they are unable to do so in a manner that promotes their sexual health. A lack of effective sexual health education can negatively impact individuals with intellectual disabilities in adolescence and throughout adulthood. More specifically, a lack of such education may lead to a higher risk of negative sexual health outcomes (e.g., sexually transmitted infections [STIs] and unplanned pregnancies), higher risk of abuse, and a lack of knowledge about healthy relationships.

Sexual knowledge among those with intellectual disabilities is generally lower than those in the general population (Dukes & McGuire, 2009; Galea, Butler, Iacono, & Leighton, 2004; Isler, Tas, Beytut, Conk, 2009; Swango-Wilson, 2011). This lack of sexual knowledge can lead to increased sexual risk-taking behaviours (e.g., not using contraception) and negative sexual outcomes such as unplanned pregnancies or the contraction of STIs.

These negative sexual outcomes are also more likely due to the fact that adolescents with intellectual disabilities may be less likely than other adolescents to use contraceptives (Cheng & Udry, 2005). A study of adolescent and young adult American Indians with intellectual disabilities found that 38% had unprotected sex, 26% had unintended pregnancies, and 13% had three or more pregnancies (Rutman, Taualii, Need, & Tetrick, 2012). Adolescents with intellectual disabilities may not know how to use or negotiate contraceptive use, may have difficulty purchasing contraceptives and accessing sexual health clinics, and may not know about STIs or how to prevent them.

Research has also shown that women with intellectual disabilities have additional risks due to a lack of education and awareness around sexual health. For example, the Canadian Cancer Society guidelines recommend regular pap smears (a cervical cancer screening test) for women who are sexually active by the time they are 21 years of age (Canadian Cancer Society, 2015). Women with intellectual disabilities are seven to nine times more likely to have never had a Pap smear compared to women without intellectual disabilities (Rurangirwa, Van Naarden Braun, Schedel, & Yeargin-Allsopp, 2006). In addition, women with intellectual disabilities have been found to be at high risk for HIV infection (Groce & Trasi, 2006), particularly due to their vulnerability to sexual abuse (Servais, 2006), low literacy rates (Groce, 2005), and limited access to sexual health education programs. Many of these women may be undiagnosed carriers of HIV as they may not know about, or where to go for, STI and HIV testing (Bank, 2004; Groce, 2005).

3.3 Limited Knowledge Regarding Healthy Relationships

Although they report the desire for friendships, relationships, and marriage, those with intellectual disabilities may have difficulty in forming and maintaining such relationships. Many adolescents with intellectual disabilities may find social interactions challenging and may not know how to develop healthy relationships (Ray, Marks, & Bray-Garretson, 2004). As such, adolescents with intellectual disabilities may experience loneliness and social isolation (Idan & Margalit, 2014). In a study of 38 neurotypical adolescents and 35 adolescents and young adults with Autism Spectrum Disorder (ASD), the findings indicated that individuals with ASD had less access to peers and friends, engaged in more unacceptable behaviours when trying to initiate romantic relationships, and persisted in trying to form these relationships even when the other party's disinterest was evident (Stokes, Newton, & Kaur, 2007). Building relationship and social skills are important aspects of sexual health education and can help adolescents navigate conversations about contraception, their feelings, and what they want out of relationships.

Comprehensive sexual health education programs that include information and skills training on healthy relationships can be vital to increasing healthy peer relationships for individuals with intellectual disabilities. Such education programs could include information and training around starting, maintaining, and ending dating relationships. Education and skills training relevant to sex refusal, resisting peer pressure, and communicating with sexual partners is also important to include (DiClemente, Crosby, & Wingood, 2002).

3.4 Exclusion of Adolescents with Intellectual Disabilities from Sexual Health Education

Despite evidence that adolescents with intellectual disabilities have sexual desires and engage in sexual relationships, limited sexual health education has been offered to them. Existing programs are rarely specific to the needs of this population. Specifically, research has shown that individuals with intellectual disabilities receive less sex education than their non-disabled peers (Levy & Packman, 2004; McCabe, Cummins, & Deeks, 1999; Murphy & O'Callaghan, 2004). A study of 16 adolescents with intellectual disabilities and their experiences with sex education found that students had difficulty remembering if they had received any sex education (Löfgren-Martenson, 2012). Those that reported receiving sexual health education indicated that it was

difficult to understand or that it did not provide enough information to meet their needs. Thus, individuals with intellectual disabilities often lack the necessary knowledge, skills, and understanding to make educated decisions related to their sexual health (Lofgren-Martenson, 2012; Swango-Wilson, 2009; Swango-Wilson, 2011).

3.5 Benefits of Sexual Health Education

Education is an important tool that can help to promote decision-making abilities in individuals with intellectual disabilities, helping to prepare them to make healthy choices. Comprehensive, appropriate sexual health education empowers individuals with intellectual disabilities to find sexual fulfillment while protecting themselves from abuse and unwanted sexual and reproductive outcomes (e.g., unplanned pregnancy, STIs) (Murphy & Young, 2005). Sexual health education can reduce the risk of abuse in individuals with intellectual disabilities, can reduce inappropriate sexual expression, and can help teach the knowledge and skills required to start and maintain healthy relationships (Aylott, 1999; Lumley & Scotti, 2001; Ward, Trigler, & Pfeiffer, 2001).

As noted in the Canadian Guidelines for Sexual Health Education, the goals of sexual health education are "to help people achieve positive outcomes (e.g., self-esteem, respect for self and others, non-exploitive sexual relations, rewarding human relationships, informed reproductive choices) and to avoid negative outcomes (e.g., STIs/HIV, sexual coercion, unintended pregnancy)" (Public Health Agency of Canada [PHAC], 2008, p. 8). Sexual health education is a right for all individuals and is an important tool for preparing all adolescents for future relationships and interactions.

4. Issues Around Sexual Health Education for Adolescents with Intellectual Disabilities

4.1 Consent

Consent is a voluntary agreement to engage in sexual activity and is based on an affirmative standard (i.e., it must be a 'yes', not merely the lack of a 'no') (Department of Justice Canada, 2015). Consent cannot be given by someone who is intoxicated, unconscious, or otherwise considered incapable of giving consent. Consent can be withdrawn at any time using words or actions.

The age of consent in Canada is 16 years for most individuals. The Criminal Code of Canada also stipulates that there are certain populations that cannot give their consent for sexual activity because they are deemed mentally incapable, even if they are over the age of consent (Department of Justice Canada, 2007). In Canada, there is no specific test to determine whether a person is able to consent to sexual activity. However, the test of capability of consenting to any activity (e.g., health-related decisions) generally depends on whether or not the person has the capacity to understand the nature and consequences of their decision (Vancouver Coastal

Health Authority, 2009). This means that people with intellectual disabilities may not be seen as having the capacity to consent to sexual activity.

This can be problematic because it can prevent people with intellectual disabilities from fully controlling and expressing their sexual rights or preferences. It can also put those who have the authority to provide consent on their behalf (i.e., legal guardians or caregivers) in a powerful position (Gougeon, 2009). Thus, legal guardians and caregivers for people living with intellectual disabilities have a responsibility to balance the individual's need for protection with their need for control over the individual's sexual health. Caregivers may also be worried about their liability in situations where they allow individuals with intellectual disabilities to engage in sexual activities and relationships (Bernert, 2011; Esmai, Darry, Walter, & Knupp, 2010).

It can be difficult to determine whether an individual with an intellectual disability is truly consenting to sexual activity. In healthcare situations, several principles are used to determine capacity to consent. Firstly, capacity refers to mental ability to make a particular decision at a particular time. Secondly, capacity is not static but can change over time or require different abilities based on the nature and complexity of the specific treatment decision. Thirdly, assessed capacity can vary according to the supports provided. Fourthly, others who know the patient best should be involved to provide relevant information or to facilitate the person's understanding and communication. Finally, if the person is incapable of consent, a delegate for decision-making should be appointed; decisions should be based on the person's best interests in the current circumstances (Surrey Place Centre, 2011).

The capacity for consenting to sexual activity can be increased for adolescents with intellectual disabilities through sexual health education (Dukes & McGuire, 2009). It is important to give these individuals the knowledge and skills necessary to be able to make informed choices and advocate for themselves.

4.2 Abuse

Individuals with intellectual disabilities are extremely vulnerable to sexual abuse and victimization (Alriksson-Schmidt, Armour, & Thibadeau, 2010). This vulnerability is due in part to their disabilities and in part to their lack of experience and education related to healthy sexuality. It is estimated that the risk of sexual abuse is 1.5 to 1.8 times greater for individuals with intellectual disabilities than their non-disabled peers (American Academy of Pediatrics, 2001; Mansell, Sobsey, & Moskal, 1998). Linton and Rueda (2015) studied the perceptions of 13 school-based social workers about the dating and sexual experiences of minority youth with physical and/or intellectual disabilities. These social workers reported that many of the youth had histories of physical abuse, sexual abuse, and/or violence. They also reported that many of these youth often seemed to accept these behaviours as normal.

It is difficult to know the true rate of abuse in this population as much abuse is unreported for a variety of reasons (Swango-Wilson, 2011; Tang & Lee, 1999):

- People with intellectual disabilities often lack knowledge about what behaviours are appropriate and thus, may not recognize abuse when it happens.
- They may also lack the communication skills needed to report abuse.
- It can be difficult to report the abuse because the abusers are often in close proximity to the victim.
- Reporting of the abuse is often discouraged.

4.3 Historical Views about Individuals with Intellectual Disabilities

Historically, individuals with intellectual disabilities have been denied access to sexual health education and the opportunity for sexual decision-making. For example, individuals with intellectual disabilities have been discouraged from having relationships and may be seen as unable to consent to sexual activity. There has been an assumption that individuals with intellectual disabilities were asexual (i.e., not having sexual desires), and thus their need for education on sexual health was ignored (Murphy & Elias, 2006). As well, individuals with intellectual disabilities, even adults, were seen as "perpetual children". Specifically, they were seen as needing support and being unable to make decisions for themselves (Bane et al., 2012; Fitzgerald & Withers, 2003).

There was also a fear by some caregivers and educators that teaching individuals with intellectual disabilities about sex would make them more sexually aggressive, promiscuous, and/or more likely to commit sexual offenses (Foley, 2013; Taylor Gomez, 2012). However, having an intellectual disability does not increase the risk of committing sexual offenses (Eastgate, 2008). Instead, having poor access to education and information about appropriate sexual behaviour, a lack of opportunity for healthy relationships, and past experience of sexual abuse may be risk factors for committing sexual offences (Eastgate, 2008).

These viewpoints have led to many individuals with intellectual disabilities being excluded from accessing sexual health education and the opportunity to learn about and build their skills around sexual health (Boehning, 2006; Hamilton, 2002). These views show a lack of understanding of the needs of individuals with intellectual disabilities and do not take into account the evidence indicating that this population has sexual desires and sexual relationships. The reality indicates that this population of adolescents is in need of education to promote their sexual health.

5. Barriers to Effective Sexual Health Education for Adolescents with Intellectual Disabilities

Despite the recognition that individuals with intellectual disabilities are sexual beings in need of sexual health education, there are still many barriers to achieving this goal.

5.1 Caregiver Characteristics

Caregivers[1] of adolescents with intellectual disabilities play an important role in their sexual health education. Caregivers can help their children learn about healthy relationships and can teach their children about sexual health in an ongoing manner, beginning at an early age. However, for caregivers of children with intellectual disabilities, there may be challenges to making this a reality (Isler et al., 2009).

Caregivers may be hesitant to bring up sensitive topics such as menstruation, sexual intercourse, sexual preferences, and masturbation. They may be uncomfortable talking about these things with their children or may not know how to broach these subjects (Abbott & Howarth, 2007; Schaafsma, Kok, Stoffelen, & Curfs, 2015). Thus, they may ignore these topics altogether because they do not know how to address them effectively (Howard-Barr, Rienzo, Pigg, & James, 2005; Kok & Akyuz, 2015). One study of mothers of adolescents with intellectual disabilities found that these mothers were less likely to discuss sexuality with their adolescents and were more apprehensive about their use of contraceptives (Pownall, Johada, & Hastings, 2012).

Caregivers may fear that talking to their children about sex will encourage sexual experimentation or promiscuity. They may also fear that they will not know how to deal with questions or situations properly (Berman et al., 1999; Kreinin, 2004). Caregivers may avoid teaching their children with intellectual disabilities about healthy sexuality because they want to protect them (Lafferty, McConkey, & Simpson, 2012), and they may believe that teaching them about sex and sexual health may cause harm or lead to unwanted sexual behaviour (Rohleder, 2010).

In a meta-synthesis, Rushbrooke, Murray, and Townsend (2014b) examined the difficulties experienced by caregivers in relation to the sexuality of people with intellectual disabilities. These difficulties included: fear and anxiety, feeling like they were not competent to deal with issues related to sexuality, embarrassment, uncertainty around who should initiate conversations about sexual matters, a fear of accountability or of being inappropriate, and the need to balance the roles of ‘protector’ and ‘facilitator’. For example, caregivers may be in situations where they are both responsible for making decisions regarding the wellbeing of an individual with intellectual disabilities and responsible for promoting their sexual health education. In a Turkish study of 40 parents of children with mild to moderate intellectual

[1] The term ‘caregiver’ is used here to refer to parents and other caregivers who provide care for adolescents with intellectual disabilities on a day-to-day basis.

disabilities (Isler, Beytut, Tas, & Conk, 2009), almost half of the parents said they had not talked about sexuality with their children. As well, among those that did talk to their children about sexuality, most parents only started this education when their child was in high school. This is despite the belief of half of the parents in the study that sexual health education should begin during the elementary school years.

Because of the unique sexual health education needs of adolescents with intellectual disabilities, caregivers may need additional support from health professionals and other educators to ensure that their children receive adequate sexual health education. Caregivers may need professional training. Such training could help them feel more competent and comfortable as sexual health educators for their children, thereby contributing to their children's sexual health and well-being (Heinz & Grant, 2003; Jinnah & Stoneman, 2008; Rushbrooke et al., 2014b). However, there is currently a lack of training available for these caregivers (Lafferty et al., 2012).

5.2 Control, Privacy, and Sexual Health

Adolescents and adults with intellectual disabilities may have limited control over their own sexuality and sexual experiences (Healy et al., 2009). For example, their control may be limited by the rules of their caregivers, the place where they live, and their level of independence. Their caregivers may not allow them to have privacy or to receive sexual health education. As such, individuals with intellectual disabilities may have fewer positive sexual experiences than their non-disabled peers (Leutar & Mihokovic, 2007; McCabe, 1999; Siebelink et al., 2006). Parents, caregivers, service providers, and other professionals in the lives of individuals with intellectual disabilities can play an important role in how they are able to exercise their sexuality in terms of privacy and having control over their relationships.

The perspectives of others can act as barriers to adolescents being able to exercise their sexual rights. Research has shown that individuals with intellectual disabilities may be restricted in their sexual options by the prejudices, opinions, and regulations of parents, caregivers, service providers, and other professionals (Bernert & Ogletree, 2013; Evans, McGuire, Healy, & Carley, 2009; Garbutt, 2008). These groups may believe that intimacy is inappropriate and should be discouraged or prevented among individuals with intellectual disabilities (Aunos & Feldman, 2002). In a study of 15 individuals with intellectual disabilities, participants noted that their relationships were impacted by the restrictions of caregiving staff. For example, these participants reported being chastised by staff for kissing, being monitored, or being pressured to keep relationships secret or to end them altogether (Kelly et al., 2009).

Staff and family members may also encourage friendships over sexual relationships (Healy et al., 2009; Kelly et al., 2009; Lofgren-Martenson, 2004). Sexual activity may not be allowed by parents (Lesseliers, 1999) or may be discouraged by family or staff members (Löfgren-Martenson, 2004). In a study by Rushbrooke et al. (2014a), individuals with intellectual disabilities expressed a desire for new relationships and to express their sexuality, but noted

that their choices about relationships were constrained by external influences – family, caregivers, service providers, or society. Staff may be worried that they will be liable if parents take issue with their adolescent or adult child having a sexual relationship; therefore, they may feel pressured to limit these sexual interactions (Lafferty et al., 2012). Research also showed that staff with higher education and training levels were more likely to have positive attitudes towards the sexuality of individuals with intellectual disabilities (Grieve, McLaren, Lindsay, & Culling, 2008).

Privacy is a significant issue for adolescents and adults with intellectual disabilities, especially in residential settings (e.g., a group home or a care facility) (Evans et al., 2009; Healy et al., 2009; Lofgren-Martenson, 2004). Knox and Hickson (2001) found that people with intellectual disabilities faced a lack of private spaces for pursuing intimate relationships. Caregivers often have control of the individual's environment, and this can limit privacy and sexual autonomy (Bernert, 2011). For example, in care facilities, caregivers may not allow overnight visitors, or they may enter the individual's bedroom without permission. This may lead to individuals with intellectual disabilities using isolated public or semi-private spaces to be sexually active (Hollomotz & The Speak-up Committee, 2009). Self-advocates with intellectual disabilities express frustration over the lack of privacy and control over their sexual rights and sexual expression (Hollomotz & The Speak-up Committee, 2009).

5.3 Learning Difficulties for Adolescents with Intellectual Disabilities

Adolescents with intellectual disabilities may have learning difficulties that determine what types of educational programs are most effective for them. Intellectual disabilities are associated with limitations in intellectual and adaptive behaviour, including conceptual, social, and practical adaptive skills (Schalock et al., 2010; Schalock et al., 2012). This means that individuals with intellectual disabilities may have difficulty with traditional sexual health education programs. For example, they may experience difficulties in acquiring knowledge (Sigafoos, O'Reilly, & Green, 2007) and may thus learn at a slower rate than their non-disabled peers (Neufeld, Klingeil, Bryen, Silverman, & Thomas, 2002). They may also have difficulty with memory and with understanding abstract concepts (e.g., trust, consent, and privacy). Topics in traditional sexual health education programs often require background knowledge (e.g., a demonstration on condom use would require knowing about male and female anatomy, ejaculation, sexual arousal, and sexual activity) or technical terms and the ability to apply textbook knowledge to real-world situations. The learning needs of adolescents with intellectual disabilities require specific adaptations to ensure that these individuals are able to learn and retain information in sexual health education programs (Finlay, Rohleder, Taylor, & Culfear, 2015). Caregivers, teachers, and other professionals need to be cognizant of the specific learning needs of the individuals with intellectual disabilities so that programs can be effectively adapted for them.

Individuals with intellectual disabilities may also experience difficulties with finding, forming, and maintaining both friendships and sexual relationships (Abbott & Burns, 2007; Abbott &

Howarth, 2007). They may have impaired social, behavioural, and decision-making skills, which may impact these relationships (Egemo-Helm et al., 2007; Hayashi, Arakida, & Ohashi, 2011; Khemka, Hickson, & Reynolds, 2005). The potential inability to form healthy and enjoyable relationships may also negatively influence their sexual health. Traditional sexual health education programs may not include specific education on social skills and/or healthy relationships (both friendships and dating relationships). These topics may be of special interest for adolescents with intellectual disabilities to ensure that they can develop healthy relationships with others and can negotiate sexually healthy behaviour in the context of those relationships.

The deficits associated with intellectual disabilities may also lead to difficulties in communication. People with intellectual disabilities may have difficulty understanding language, especially long or complex sentences (Sigafoos et al., 2007). Thus, communication may be an issue for delivering sexual health education programming and for self-reports of the sexual health needs of this population (Ziviani, Lennox, Allison, Lyons, & Mar, 2004). That is, both comprehension of material and communication about their needs for sexual health education may be an issue. Educators, caregivers, and other professionals may communicate with individuals with intellectual disabilities using vocabulary that is too complex and not well-explained (Antaki & Finlay, 2012; Bradshaw, 2001). As well, individuals with intellectual disabilities may not be able to convey their needs for sexual education or to convey their experiences (e.g., around abuse, their needs for contraception).

These issues indicate a need for adaptation of existing sexual health education programs to create appropriate material for individuals with intellectual disabilities. Specifically, adapted materials and programs need to meet the social and communicative needs of individuals with intellectual disabilities. Without recognition of these issues and making the necessary adaptations, existing sexual health education programs will likely not meet the needs of this population.

5.4 Lack of Effective Sexual Health Education Programs

Despite the need for adapted sexual health education programs, the search conducted for this literature review found no comprehensive programs for adolescents with intellectual disabilities. Several programs were identified that included information and methods that were specifically adapted for individuals with intellectual disabilities; however, none of these programs have been systematically evaluated for their effectiveness and often lack a proper evidence base (Schaafsma, Stoffelen, Kok, & Curfs, 2013).

Similarly, a recent systematic review identified several issues related to sexual health education for individuals with intellectual disabilities that indicate a need for more research in this area (Schaafsma et al., 2015). Firstly, only a few of the identified studies included adolescents with intellectual disabilities as participants. Therefore, the generalizability of these findings for the purpose of this literature review is limited (i.e., the sexual health needs of adolescents with

intellectual disabilities may be different from those of adults with intellectual disabilities). Secondly, there were several methodological issues identified in the studies, leading to lack of empirical evidence to support most of the interventions. These methodological issues included a lack of control groups, small sample sizes, and limited clarity about the sample and methodological characteristics (Grieve, McLaren, & Lindsay, 2006). The authors of the systematic review (Schaafsma et al., 2015) note that although several studies indicated that skills and knowledge around sexual health can be increased and attitudes of caregivers, staff, and professionals can be improved, the goals of many of the studies were not explicit (e.g., a goal in some studies was to 'increase the sexual knowledge' of the participants).

For future research, it is important to explicitly define the desired goals of the programs and to evaluate whether these goals have been met. For example, what types of sexual knowledge is needed in order to increase positive sexual experiences? Has knowledge about specific sexual health topics increased after the intervention (e.g., contraception and condom use)? Have skills been learned and retained? Future studies should also provide clear explanations about what was taught in the program and the methods that were used, as Schaafsma et al. (2015) found that these explanations are often lacking. This makes it difficult to use the same program in new populations or to replicate the studies.

6. Facilitators of Effective Sexual Health Education for Adolescents with Intellectual Disabilities

6.1 Involvement of Parents, Caregivers, and Professionals

As discussed previously, parents, caregivers, and professionals can all play an important role in ensuring that adolescents with intellectual disabilities receive appropriate and effective sexual health education. Parent or caregiver involvement is especially crucial to promoting sexual health; they can help with repetition and reinforcement of information and with providing consistent messaging. They can also help make changes to the adolescent's environment based on their sexual needs (e.g., ensuring privacy and safety). Parents and caregivers may need support from professionals to deal with the complex range of issues surrounding their adolescent's sexuality (Isler et al., 2009). Training for parents and caregivers can be effective in increasing their information levels and confidence (Kok & Akyuz, 2015). Professionals have the ability to equip parents, caregivers, and individuals with intellectual disabilities with knowledge around sexual health (Ballan, 2012). Pediatricians are uniquely placed to provide guidance on sexual health education to parents of children with intellectual disabilities, as they are consistently involved with both the family and child over long periods of time (American Academy of Pediatrics, 1996).

6.2 Involvement of Adolescents with Intellectual Disabilities

Individuals with intellectual disabilities are often not in full control of their environment or their sexuality. Family members, caregivers, and health professionals often make decisions for these

individuals without adequate discussion with the individuals themselves. This can limit the ability of individuals with intellectual disabilities to fully express their needs and desires. As well, many sexual health education programs are not designed specifically for those with intellectual disabilities and therefore are not likely to be effective in meeting their needs. These factors thereby limit the ability of individuals with intellectual disabilities to achieve good sexual health. To this end, McCabe (1993) has suggested that individuals with intellectual disabilities should be included in the planning of sexual health education so that their needs can be better addressed. In this way, they can tell educators what they need, how they learn, and how fast to go through the material. This involvement will also empower these individuals to make decisions regarding their sexual health and to make sure their sexual health education is meeting their needs.

6.3 Peer Involvement

Peers and friends are an important source of sexual health information and education, especially for adolescents. Gougeon (2009) highlights the importance of including peers in sexual health education as individuals with intellectual disabilities are often excluded from indirect educational experiences outside of the classroom (e.g., peer interactions in day-to-day life). Therefore, the inclusion of peers can aid with learning social aspects of sexuality, such as manners, personal space, conversation skills, and consent. Involving peers in sexual health education can also help to limit influences of power and authority. For example, caregivers and other health professionals may have specific views about what types of sexual activity are okay for individuals with intellectual disabilities, whereas peers may be more open and understanding (Forrest, Strange, & Oakley, 2002). Peer involvement can also help to ensure that the methods used are appropriate, accessible, and interesting (Forrest et al., 2002). The involvement of peers can help adolescents with intellectual disabilities to feel more comfortable with the material and can give them a chance to role play certain situations in sexual health education. In addition to the inclusion of adolescents with intellectual disabilities in the development and delivery of sexual health education, peer involvement may also include providing adolescents with intellectual disabilities time to observe, interact with, and learn from their non-disabled peers (Gougeon, 2009).

6.4 Comprehensive Range of Topics for Sexual Health Education

An evaluation of 12 sexual health education curricula for students with intellectual disabilities in the United States indicated that no single curriculum provided a comprehensive range of topics on sexuality and sexual health (Blanchette & Wolfe, 2002). Topics that were missing from these curricula included information on healthy relationships, positive sexual identity, and sexual orientation. In order to provide adolescents with comprehensive sexual health education, programs need to be developed that include a wide range of topics that will promote improved sexual health. The following is a discussion of topics that should be included in sexual health education programs for adolescents with intellectual disabilities.

6.4.1 Abuse Prevention

Historically, sexual health education for adolescents and adults with intellectual disabilities was focused on preventing sexual abuse. This trend continues, with many of the available sexual health programs focussing specifically on victimization, the prevention of abuse, and how to report abuse. This is an important topic to include, as adolescents and adults with intellectual disabilities are more vulnerable to sexual abuse than their non-disabled peers. However, this should not be the sole focus of the educational interventions. It is important to ensure that adolescents with intellectual disabilities are given information on a variety of topics to help build their capacity for sexual decision-making.

For example, the Family Life and Sexual Health (FLASH) curriculum is an example of a more comprehensive sexual health curriculum in use in the United States. It is used primarily with mainstream students for sexual health education, but there is an adaptation that can be used for students with intellectual disabilities. In addition to providing information about sexual abuse and assault, the standard FLASH curriculum educates students on puberty, abstinence, condom use and birth control, consent, communication, making sexually healthy decisions, and seeking medical care related to reproductive health. The adapted FLASH curriculum for individuals with intellectual disabilities covers the following topics: private vs. public, relationships, communication, exploitation, understanding the body, reproduction, and HIV/AIDS and STIs. A full version of the adapted curriculum is available from the King County Public Health website (http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/SpecialEducation.aspx).

Although the adapted FLASH curriculum is attempting to be comprehensive, Winges-Yanez (2014) has identified several issues with this curriculum. These include focusing on individuals with intellectual disabilities as 'victims', the belief that this population cannot understand certain aspects of sexual health, and heteronormativity (the belief that heterosexuality is the only sexual orientation or the norm). In addition, Winges-Yanez suggests that this curriculum provides little discussion of sexual touch as pleasurable or natural but rather, focuses on how to report abuse, on what is appropriate in private versus public settings (e.g., touch, masturbation), and on victimization. The curriculum was adapted from that of mainstream students, with lessons around healthy sexuality and healthy relationships being omitted or oversimplified. Information about homosexuality and queer identities was also removed for the adapted version. Thus, although this program is meant to educate adolescents with intellectual disabilities about sexual health, it may instead contribute to the limitations experienced by these adolescents in terms of sexual control and decision-making. The findings from Winges-Yanez highlight the importance of critically appraising the quality of sexual health education programs to ensure that they are appropriate for individuals with intellectual disabilities.

6.4.2 Healthy Relationships

Individuals with intellectual disabilities may have difficulty with social situations and, as a result, may face social isolation and loneliness. Therefore, it is vital that education around healthy relationships is part of their sexual health education curriculum. Healthy relationships include both friendships and dating/sexual relationships. A study by Löfgren-Martenson (2012) found that adolescents with intellectual disabilities wanted to learn about friendships; dating relationships; and how to combat loneliness, alienation, and bullying.

Building social skills is an important component of sexual health education as social skills are necessary for engaging in dating and sexual relationships (Walker-Hirsch, 2002). Hayashi et al. (2011) examined the effectiveness of a Japanese sexual health education program that integrated social skills sessions for individuals with intellectual disabilities. Topics related to social skills included introductions, communication, assertiveness, manners, and how to deal with sexual harassment. Other topics included information on physical appearance, self-care, sense of space, and differences between male and female bodies. Using Kikuchi's Scale of Social Skills, Hayashi et al. measured changes in social skills after the intervention. The experimental group showed a significant increase in social skills after the completion of the session (as per their scores on the scale), while the control group did not. These findings indicate that social skills can be effectively taught to individuals with intellectual disabilities, increasing the likelihood that they will experience healthy relationships.

6.4.3 Sexual Health

As previously discussed, research suggests that individuals with intellectual disabilities want more information about sexual health. Sexual health education, especially for individuals who have never received it, should begin with the basics. Caregivers and educators should not simply assume that the individual has any prior knowledge of sexual health (Society of Obstetricians and Gynaecologists of Canada [SOGC], 2015).

It is recommended that sexual health education for all individuals start in early childhood and increase in complexity over time. The Canadian Guidelines for Sexual Health Education (PHAC, 2003) recommend the following be included in all sexual health education programs:

- Knowledge acquisition and understanding (e.g., information relevant to personal sexual health, understanding of differences in beliefs about sexual health)
- Motivation and personal insight (e.g., acceptance of one's own sexuality, development of positive attitudes around sexual health-promoting behaviours)

- Skills that support sexual health (e.g., being able to form age-appropriate sexual health goals; carry out health-promoting behaviours; raise, discuss, and negotiate sexual health issues with a partner)
- Environments conducive to sexual health
- Reduction of negative sexual health outcomes (e.g., prevention of unintended pregnancy, STIs/HIV, sexual harassment, abuse, sexual dysfunction)
- Sexual health enhancement (e.g., positive self-image and self-worth)

6.4.4 Sexual Preferences

Research indicates that approximately 2 to 10% of Canadians self-identify as non-heterosexual (Peterkin & Risdon, 2003). Despite this prevalence, many sexual health education programs avoid discussions of non-heterosexual relationships. Homosexual individuals with intellectual disabilities may feel 'invisible' and discriminated against due to the attitudes and behaviours of both their caregivers and professionals (Löfgren-Martenson, 2009). As such, there is a need to expand training and education to include information about diverse sexual and gender identities. Such information is necessary for those living with intellectual disabilities to make educated decisions related to their sexual preferences, and may help to reduce the stigma faced by these individuals.

6.5 Individualized Programming

Individualized programming for individuals with intellectual disabilities is important because of the range of abilities, skills, and learning styles found within this population. A 'one size fits all' approach cannot ensure that this population receives effective sexual health education because every individual is different. Therefore, programming should be adapted and flexible to meet the needs of the individual. Individualized programs have also been associated with positive participant feedback. For example, one study examined 252 women with developmental disabilities who were enrolled in a one-year, individualized program for family planning and health education (McDermott, Martin, Weinrich, & Kelly, 1999). Participants received weekly home visits from a Family Planning Coordinator and were taught a variety of topics based on their own individual goals. The topics included: self-esteem; relationships; decision-making; bodily functions; hygiene; exercise and physical fitness; coping with stress and anger; nutrition; alcohol, tobacco, and drug avoidance; exploitation, abuse, and crime prevention; proper use of birth control; prevention of STIs; and healthcare consumerism. Although the participants provided positive feedback about the program, there was limited assessment or follow-up with the participants. This limits the information available about the usefulness of such a program in practice. It is possible that with continued education, combined with other strategies such as repetition of information and skill-building, individualized education for individuals with intellectual disabilities can be beneficial.

6.6 Adaptations

As highlighted in the previous sections, many factors need to be considered for the delivery of sexual health education programs to individuals with intellectual disabilities. Some of the factors that need to be considered when working with this population include low literacy, communication difficulties, difficulties with abstract thinking, and slower rates of learning. These issues need to be considered and accounted for in programming. There is limited information about how these adaptations can be made and of the effectiveness of existing adaptations in sexual health education programming for adolescents with intellectual disabilities. Many of the existing programs are based on general education strategies for this population, as well as grey literature.

A study of sexual health education for adolescents with special educational needs found that comprehension difficulties could impact their learning, but instructors did not always notice when the student did not understand (Finlay et al., 2015). The authors suggested that educators should try to assess knowledge by asking questions and getting students to respond in their own words.

Some information can be simplified, but it is important not to over-simplify to the point of making students feel like they are being talked down to. For example, the 'No-Go-Tell' model is an effective, simple method of teaching abuse prevention for individuals with intellectual disabilities (Stanfield, 2015). This model is based on three simple concepts:

- No – You have the right to say no to something or someone that makes you feel uncomfortable, unsafe, painful, or weird, no matter who is asking you to do it.
- Go – Leave the situation if you can do so safely.
- Tell – Talk to someone you trust about what happened. If that person does not listen, keep telling until someone listens to you and believes you.

As can be seen in the description above, the 'No-Go-Tell' model uses simple, straightforward messages along with lots of repetition. Sexual health education programs focused on other topics could use this model as an example for the level of language used and the importance of repetition for learning.

7. Models and Strategies for Effective Sexual Health Education for Adolescents with Intellectual Disabilities

Several education models were identified during the literature search that may be useful for teaching sexual health education to individuals with intellectual disabilities. However, it is important to note that these models have not been widely evaluated or used with this particular population. Therefore, although these models may provide useful information, further research and development in this area is needed.

7.1 Information, Motivation, and Behavioural Skills (IMB) Model

The Canadian Guidelines for Sexual Health Education highlight the use of the Information, Motivation, and Behavioural Skills (IMB) Model as an evaluated, effective model for sexual health education (PHAC, 2008). Although it is not specifically designed or adapted to meet the needs of adolescents with intellectual disabilities, it provides a model for the areas that must be addressed in effective sexual health education programs. This model is based on three elements:

- Information that is directly relevant to sexual health and is easy to apply in the individual's own life
- Motivation to use the knowledge to avoid negative sexual health outcomes and to promote their sexual health
- Behavioural skills to carry out the healthy behaviours; practice and role-play are seen as necessary

The Guidelines note that the information included in sexual health education programs should be directly linked to the desired behavioural outcomes; easy to translate into the desired behaviours; practical, adaptable, culturally competent, and socially inclusive; and age, gender, and developmentally appropriate. In addition, three types of motivation are identified in this model: emotional, personal, and social. Emotional motivation acknowledges that individuals' emotional responses to sexuality and sexual behaviours may heavily influence whether or not individuals act to promote their sexual health. Personal motivation is related to the fact that an individual's attitudes and beliefs in relation to a specific behaviour strongly predict whether or not that individual engages in that behaviour. Social motivation is related to an individual's beliefs regarding social norms and perceived social support for the behaviour.

Behavioural skills consist of the practical skills needed for performing the behaviour and the self-efficacy involved in the behaviour. In other words, behavioural skills and the ability to enact these skills determine whether people are able to act on the information they have learned and the motivation they have.

Although this model is not specific to adolescents with intellectual disabilities, the elements included in this model are important for any program developed for sexual health education. For adolescents with intellectual disabilities, these programs may need to be adapted to be more developmentally appropriate and to ensure that the methods used meet the learning needs of this group. As well, the IMB Model highlights the importance of focusing on skill-building as well as knowledge. Skill-building is an important aspect of sexual health education for individuals with intellectual disabilities as they may otherwise have difficulty putting knowledge into practice without explicit instruction on how to do so.

Although no sexual health education programs were identified that used this model with individuals with intellectual disabilities, a similar model (the Socio-Behavioural Skills model) has been used with this population. For example, a program using a knowledge-based, socio-behavioural skills model to teach women with intellectual disabilities about sexual health has shown promising outcomes. This program was found to be effective in increasing HIV/AIDS knowledge, condom use skills, behavioural skills related to HIV avoidance, and intention to use condoms (Wells, Clark, & Sarno, 2012). This model has also been used for youth and adults with intellectual disabilities to prevent substance use and crime (Wells, 2005) and to teach emergency preparedness (Wells, 2006).

7.2 Direct Instruction Model

Direct Instruction is a model of teaching that involves lessons designed around small learning increments and clearly defined and prescribed teaching tasks (National Institute for Direct Instruction [NIFDI], 2015). This model requires that students are placed into classes at their skill level (not their chronological age). This is done to ensure mastery of the content through the gradual introduction of new skills that must be learned and applied before moving on. According to NIFDI, each lesson contains only 10% new material, and the other 90% is review and application of previously-introduced skills. Instruction is modified to accommodate each student's rate of learning. Ongoing evaluation and testing of the programs is an important part of this model.

Research using the Direct Instruction model has demonstrated the efficacy of this method for teaching people with intellectual disabilities (Gersten, White, Falco, & Carnine, 1982; Lockery & Maggs, 1982), including some focus on sexual health education programs (e.g, Delaine, 2012). This model may be a particularly useful method for educating individuals with intellectual disabilities for a number of reasons: 1) it is based on the individual's needs and skill level; 2) it adapts the rate of learning to the individual; and 3) it focuses on repetition and slow introduction of new material.

7.3 Using Technology

Computer-based interactive multimedia (CBIM) programs have also been found to be effective in educating people with intellectual disabilities about sexual health. For example, one study evaluated the effectiveness of a CBIM program focused on HIV prevention for twenty-five women with intellectual disabilities aged 24-29 (Delaine, 2012). The study found increases in all knowledge domains (HIV transmission, HIV prevention, and HIV testing) and skill domains (e.g., condom use). These results indicate that the program was effective in increasing knowledge (at least in the short-term) after a single-session intervention, suggesting that CBMI can be used as an effective tool for teaching behavioural health content.

Although repetition and practice are needed for understanding and skill-building, technology can be used as part of this process. The program evaluated by Delaine (2012) broke up the information into segments based on Direct Instruction principles. For example, the first segment

regarding transmission of HIV through sexual contact was divided into four components: HIV is a virus that causes AIDS, AIDS is a disease for which there is no cure, semen and vaginal secretions are high-risk fluids, and what constitutes sexual behaviours. A computer program with voice-over narration, animation, graphics, and videos was used to teach the information. If the user answered a question incorrectly, they received immediate feedback regarding the correct answer. Participants were then re-tested after listening to this feedback.

Using technology in this way can allow instructors or caregivers to provide consistent messaging and to ensure understanding of the material through immediate feedback. It also allows individuals with intellectual disabilities to go back through the material and get the repetition necessary for long-term learning.

7.4 Other Strategies

Several other practical strategies have been identified that may be useful for educating individuals with intellectual disabilities about sexual health. These strategies can be used by parents and other caregivers, health professionals, and educators. The strategies include (Egemo-Helm et al., 2007; Society of Obstetricians and Gynecologists, 2015):

- repetition of material
- being concrete (e.g., using pictures, videos, real-life examples)
- going through information slowly to ensure that the individuals can process the information, ask questions, and have discussions
- practicing the material through role-play, modelling, and rehearsal
- starting with basic information and moving to more complex issues
- teaching refusal skills
- practicing appropriate affection
- discussing masturbation (i.e., what it is, when it is and is not appropriate)

8. Limitations

Several limitations of the current literature review are important to note. These include the lack of Canadian-specific research, limited peer-reviewed research, and the limited research that is specific to adolescents. Canadian-specific research on the best methods for sexual health education for adolescents with intellectual disabilities is lacking. Many of the academic studies reported on in this review were conducted in other countries, including Turkey, Poland, South Africa, and the United Kingdom. Thus, the results from these studies may not be generalizable to the Canadian context. Further research is necessary to determine what strategies and methods for sexual health education are appropriate and effective for Canadian adolescents with intellectual disabilities.

There is also limited evaluated, peer-reviewed research about effective sexual health education for adolescents with intellectual disabilities. Much of the research evidence outlined in this review is based on single research studies with small sample sizes. Few of the studies have been replicated, limiting their generalizability for other populations with intellectual disabilities.

Much of the research summarized above is based on research with adults with intellectual disabilities. In order to ensure that the education methods discussed will work with adolescents, more research is needed with this age group using large sample sizes and good study design. It is possible that different methods and information may be necessary to be effective with an adolescent population.

9. Conclusions

Like all adolescents, adolescents with intellectual disabilities have the right to sexual health education. In order for this education to be effective, it must be specifically designed to meet their needs. Sexual health education is important for reducing the risk of sexual abuse, STIs, and other unwanted sexual health outcomes in this population. It can also empower individuals with intellectual disabilities to explore their sexuality in positive ways, learn how to have healthy relationships, and learn how to make their own decisions related to their sexual health.

Adolescents with intellectual disabilities face several barriers to receiving appropriate and effective sexual health education. These barriers include the views of others around them, the lack of control that they face in their day-to-day decision-making, and the lack of adapted sexual health programming. These barriers must be addressed in order to improve the sexual health of adolescents with intellectual disabilities.

The current literature search revealed no comprehensive, evaluated sexual health education programs for this population. However, there are some models and strategies available that can help guide education for adolescents with intellectual disabilities regarding their sexual health. The promising practice models include the Information, Motivation, Behavior (IMB) model, the Direct Instruction model, and using technology with the Computer-Based Interactive Multimedia (CBIM) model. Overall, these models highlight the importance of providing information and skill-building opportunities so that individuals gain knowledge and are able to put that knowledge into practice in real-world situations.

More specifically, the IMB model outlines the importance of including relevant information, addressing motivations, and building behavioural skills. The Direct Instruction model focuses on providing information that is gradually introduced, with time for repetition and practice. The CBIM model demonstrates that technology can be an effective tool for teaching knowledge and skills to individuals with intellectual disabilities. Other strategies included starting with the most basic information, going through the information slowly, including repetition, using concrete examples to explain different points, and practicing the material using real-life scenarios.

This report provides an overview of what is needed for effective sexual health education for individuals with intellectual disabilities. It also highlights why sexual health education is necessary for this population and what can be done to support individuals with intellectual disabilities to learn

more about their sexual health. Despite the noted limitations (limited Canadian-specific research, limited peer-reviewed, and limited research focused on adolescents), the current literature review provides strategies and examples of programs that may be useful for those designing sexual health education programs for adolescents with intellectual disabilities. Such education can increase the likelihood that adolescents with intellectual disabilities are able to make healthier decisions related to their sexual health.

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