EDUCATING THE EDUCATOR: DELIVERING SEXUALITY EDUCATION TO INDIVIDUALS WITH AUTISM SPECTRUM DISORDER

BY

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THESIS

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Abstract

Within the context of human sexuality, when individuals with Autism Spectrum Disorders (ASD) have sexual thoughts, feelings, and desires, they are experiencing a profoundly normal part of human development. Unfortunately, professionals are not always prepared for individuals with ASD to be so *normal*. Professionals need support in becoming sexuality educators ready to meet the specific needs of individuals with ASD. In this study, we examined the practices of current sexuality educators in terms of the contexts of their instruction, the content and teaching methods they used and the climate for providing sexuality education. We also examined the outcomes of face-to-face training and online, ongoing support in terms of changes in attitudes, values, and the degree to which participants spent more time participating in professional development activities. Finally, we examined whether the outcomes were moderated by how ongoing support was delivered online (through randomly assigning participants to receive email or Facebook updates for one month following the workshop). Participants in the program were more likely to seek additional knowledge, collaborate with other educators, and report that they felt more ready to teach human sexuality to individuals with ASD. These outcomes were the same for both email and Facebook treatment conditions. Implications for professional development are discussed.

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Chapter One: Introduction

Individuals with autism and developmental disabilities go through puberty, experience hormonal changes, become curious about their own bodies, and are sexual creatures by nature -- just like anyone else. Some people are asexual, and some people never desire to seek a romantic companion. However, just because an individual has autism does not mean they lack hormones and the natural development of a sex drive.

From the blog, "A Thinking Person's Guide to Autism" (Nebker, 2010)

At the very beginning of The Birds and The Bees, a workshop for introducing how to teach human sexuality to individuals with Autism Spectrum Disorder (ASD), participants are asked to share a time they learned about sex as a young person. This ice-breaker functions to normalize feelings of discomfort, embarrassment, and confusion that are associated with learning about human sexuality. The topic of sexuality introduces a dialectic of abnormality and normality that is difficult to understand as concretely as in other contexts. Through talking about their own sexuality education, participants are able to empathize with the *otherness* that individuals with ASD often experience in their daily lives. At the same time, within the context of human sexuality, individuals with ASD are experiencing a profoundly normal part of human development. Unfortunately, educators are not always prepared for individuals with ASD to be so *normal*: to develop sexual thoughts, feelings, and desires. This study explores how to build capacity for individuals with ASD to receive education on human sexuality. Specifically this research focuses on the practices of current sexuality educators[1], evaluates the effectiveness of face-to-face training and online ongoing support, and examines the relationship between participant outcomes and the delivery modality of ongoing support.

ASD has become a pervasive childhood disorder; 1 in 110 children in the United States is affected by ASD (Center for Disease Control and Prevention [CDC], n.d.). ASD is defined by two main characteristics that must present in early childhood and impair daily functioning (American Psychiatric Association, 2010). Children diagnosed with ASD present "restricted, repetitive patterns of behavior" (American Psychiatric Association, 2010) which may include stereotyped repetition, ritualized patterns, restricted interests, and unusual sensory reactivity. Children with ASD also have significant social communication deficits. These deficits are defined in the areas of social-emotional reciprocity, non-verbal communication behaviors, and

[1] In this study, educators are those who provide sexuality education to individuals with ASD regardless of whether they are professional educators or other professionals (e.g. social workers, therapists, adult service providers)

developing and maintaining relationships (American Psychiatric Association, 2010). These social communication skills are key components of the expression of sexuality and also how people learn about sexuality; by virtue of their disability individuals with ASD are uniquely challenged when learning about sexuality concepts. Among the general population, sexuality is a topic often learned through informal channels but individuals with ASD have difficulty learning, especially learning informally about social relationships (Realmuto & Ruble, 1999; Stokes, Newton & Kaur, 2007). For example, individuals with ASD may have difficulty understanding sexual humor, flirting, and conversations about sexual behavior. Because individuals with ASD may struggle with understanding the social context of their environment, typical avenues of sexual socialization may lead to misinformation or misunderstandings. This suggests that formal sexuality education is necessary for individuals with ASD.

Although individuals with ASD have the need for support in many areas such as social skills, daily living skills, and communication, the need for support in the area of comprehensive sexuality education remains controversial (McGuire & Bayley, 2011). Early studies reported that individuals with ASD had no interest in intimate relationships with others (Despert,1971; Rumsey, Rapoport, Sceery,1985). Additionally, there remain common myths that perpetuate the idea that individuals with ASD are asexual (Irvine, 2005). On the other hand, it is commonly believed that sexuality education may both reduce inappropriate sexual behavior and be a protective factor against sexual abuse (Crosse, Kaye & Ratnofsky, 1993; Gillberg, 2001; Mandell, Walrath, Manteuffel, Sgro, Pinto-Martin, 2005; Ray, Marks, & Bray-Garretson, 2010; Stokes, Newton, & Kaur, 2007). Moreover, a parent focus group on sexuality and their children with ASD found that: (a) parents struggled with what healthy sexuality looked like in their children with ASD; (b) they believed their children's social impairments made many sexuality topics difficult to understand; (c) they perceived that the community did not understand the sexuality needs of their children; and (d) they saw themselves as unprepared to support their children with their sexuality needs (Nicholas & Blakely-Smith, 2010). Even when the need for comprehensive human sexuality education is acknowledged, the need often goes unmet.

Need for Sexuality Education

The need for formal sexuality education for individual with ASD is typically described in terms of a combination of four factors: the right of individuals with ASD to have access to comprehensive sexuality education, increased instances of maladaptive sexual behavior when

compared to typically developing youth, reduced opportunities for intimacy, and an increased risk of sexual exploitation. Each of these factors will be discussed in more detail. This discussion focuses on each of these factors in terms of need to individuals with ASD however, it should be noted that these needs are not unique to individuals with ASD.

Right to comprehensive sexuality education. It is important to think about the need for comprehensive sexuality education in terms of a basic human right first and foremost because it pulls the discourse away from a deficit model of addressing the needs of individuals with ASD. From this position, social agencies such as schools that omit adapted comprehensive sexuality curriculum are inherently discriminating against individuals because of their disability. Although other needs for sexuality education will be discussed, the foundation for providing it to individuals with ASD is that they have a right to this information. The Sexuality Information and Education Council of the United States (SIECUS) and the American Academy of pediatrics have released statements and changed policy to advocate for the right for sexuality education for individuals with ASD and other developmental and intellectual disabilities (Murphy & Elias, 2006; SIECUS, n.d.). In a small study of adults with intellectual disabilities, respondents reported an understanding of their rights as well as significant barriers to sexual autonomy (Healy, Mcguire, Evans, & Carley, 2009).

Need to prevent undesired sexual behavior. The need for sexuality education is often situated within the context of addressing socially inappropriate sexual behavior. Individuals with ASD have social communication deficits, and for some individuals these deficits can lead to socially and emotionally inappropriate behavior (Gillberg, 2001). Some may qualify the need for sexuality education within this context due to their own discomfort, because of their misunderstanding of sexuality of individuals with ASD, or because they perceive working with individuals with ASD to be more difficult than the general population especially in regards to sexual aggressive behavior (Ray, Marks, & Bray-Garretson, 2010). Others may characterize typical sexual behavior as inappropriate because the individual has ASD. Despite anecdotal evidence that suggest that inappropriate sexual behavior is a primary concern for parents and educators, there has not been a systematic examination of need based on stakeholder attitudes and beliefs. Furthermore, there has not been systematic study comparing rates of maladaptive sexual behavior between individuals with ASD with typically developing individuals. One some small sample study showed slightly higher levels of inappropriate sexual behavior such as

stalking behavior among youth with ASD when compared to typically developing youth (Stokes, Newton, & Kaur, 2007). Other studies, however, conclude that the sexual behavior of individuals with ASD is no more deviant than the general population (Henault & Attwood, 2002).

Need to support intimate relationships. Research has indicated that individuals with ASD do have a desire for intimate relationships (Gilmour, Schalomon, & Smith, 2012; Henault & Attwood, 2002; Ousley & Mesibov, 1991; Van Bourgondien, Reichle, & Palmer, 1997). Need for support with intimate relationships has been established in several ways such as displaying sexual behavior, sexual knowledge, and sexual attitudes. For example, researchers have found that the majority (61%) of individuals with ASD living in group homes in North Carolina displayed some sort of sexual behavior (Van Bourgondien, Reichle, & Palmer, 1997). Individuals may have the need for support with intimate relationships even if they have not displayed intimate behavior. Researchers have also established need by looking at self-reports of sexual attitudes and knowledge (Ousley & Mesibov, 1991). Sexual knowledge and sexual behavior have also been linked, for example Konstantareas and Lunsky found that individuals with more sexual knowledge are less likely to want to engage in sexual activity (1997). The role of sexuality education and the desire for support with relationship development remains unclear as most research concerns the protective implications. Individuals with ASD typically need formal support for social development due to the inherent social deficits of their disability, so it seems likely that individuals who do have interest in romantic relationships may need support to develop and maintain those relationships.

Need to protect from sexual abuse. It is difficult to determine the risk of sexual abuse for individuals with ASD. In the general population, the first national survey reports sexual victimization rates of 27% for women and 16% of men (Finkelhor et al., 1990). Studies have shown that children with disabilities are 1.7 times more likely to experience sexual abuse however, in these studies all children with disabilities were examined, not just individuals with ASD (Crosse, Kaye & Ratnofsky, 1993). Individuals who are caregiver dependent may be at the highest risk as family members, family acquaintances, and paid caregivers are the most likely to commit sexual abuse (Mansell, Sobsey, Wilgosh, & Zawallich, 1996) and as individuals with more severe impairments are more likely to be abused (Ammerman, Van Hasselt, Hersen,

McGonigle, & Lubetsky, 1989)[2]. In a national study 156 children with ASD conducted from 1997 to 2000, caregivers reported that 16.6% had been sexually abused (Mandell, et. al, 2005). Difficulties communicating, lack of knowledge of sexual norms and activities, and isolation may contribute to increased risk of sexual abuse among individuals with ASD. Sexuality education may provide opportunities for individuals to be better able to communicate and understand social norms and activities. Furthermore if the support systems of individuals with ASD are in open discourse about sexuality it may create a climate where abuse is less likely to happen.

Capacity for Delivering Human Sexuality Education

There are many components that must fall into place in order for individuals with ASD to receive sexuality education. Agencies, school systems, parents, and individuals with ASD must support and put resources into sexuality education. There must be sexuality curricula and teaching materials that are effective and accessible to people willing to educate. Finally, educators must be provided with training on how to teach sexuality topics.

Training for and delivery of sexuality education. Educators vary greatly in the level of experience and training they have had with regard to teaching sexuality topics. There have been several studies that examine special educator training specifically. In a study of directors of special education teacher training programs throughout the nation, 59% report students receiving course work in sexuality education; this course work ranged from 3.6 to 20 hours of class time (May & Kundert, 1996). Of 494 Florida special education teachers who served individuals with a moderate intellectual disability, most felt at least some comprehensive sexuality education topics were appropriate, but also reported delivering only a moderate amount of sexuality education (Howard-Barr, Rienzo, Pigg, & James, 2005). In addition, the teachers reported their training as inadequate. In this study, teachers' own beliefs about what topics should be taught were a predictor of what they actually taught. Additionally, teachers of children with ASD may perceive the sexual expression of children differently based on their functioning level. Kalyva (2010) found that teachers perceived students with "low functioning Autism" to have more problematic sexual behavior; however, they expressed more concern for individuals with "high functioning Autism" regarding sexuality topics. Often times, sexuality education is not provided in the

[2] In both these studies individuals with ASD were not examined separately from individuals with other developmental disabilities.

school setting and other professionals provide support in this domain; however, there has not been a formal investigation on how these individuals are trained to teach.

Current practices in sexuality education for individuals with ASD. Although there is no information that addresses the willingness of school administrations to offer comprehensive sexuality education to individuals with ASD, there is information available for offering this type of education to students in general. The Affordable Health Care Act opened up federal funding (called PREP- Personal Responsibility Education Program) for comprehensive sexuality education as well as Title V- abstinence only education, meaning that states are able to choose the type of sexuality education offered and may offer both (SIECUS, n.d.). For fiscal year 2010, 43 states applied for PREP funding, which means their sexuality education must cover abstinence, contraception use, healthy relationships, adolescent development, financial responsibility, educational and career success, and healthy life. Until PREP funding was approved, funding was only available for Title V abstinence only education.

Even if comprehensive sexuality education is being offered in the schools, it does not necessarily mean it is being offered to individuals with ASD. Under the *Individuals with Disabilities Education Act*, students with Individual Education Plans (IEPs) have access to adapted general education curriculum. In Illinois, this means that a student can participate in a general sexuality education class room unsupported, with an aide, or opt out. If the student (or more accurately, the student's guardian), opts out, then the child's special educator is required to adapt the curriculum with parental permission. There are no standards for what that adaptation must cover or the length of instruction. This is problematic because previous research has indicated that an educator's personal values predict what he or she teaches (Howard-Barr et. al., 2005). It is also problematic because there is empirical evidence that students' sexual knowledge is directly associated with the number of instructional contacts received (McDermott, Martin, Weinrich & Kelly, 1999), which suggests that some formal guidelines would be appropriate. Guidelines would need to consider the diverse needs and resources educators face. Providers of comprehensive sexuality education for individuals with ASD may be (a) working with professionally developed curriculum for individuals with disabilities that may or may not include all elements from the SIECUS guidelines, (b) independently adapting a general education curriculum which may or may not be representative of the SIECUS guidelines, or (c) may be creating their own curriculum. Due to the diverse needs and strengths among individuals

with ASD, there may be great variability in how long it takes to cover various topics, to what depth topics can be covered, and what further adaptations may be needed.

Sexuality education offered to individuals with ASD in schools and community settings varies widely. There has not been a systematic evaluation that identifies the spectrum of education that individuals may be receiving; however, there are curricula developed specifically for individuals with ASD, such as programs developed by TEACHH and Devereux Centers (discussed in depth by Sullivan & Caterino, 2008). Another teaching method called *Social Stories* or scripts are "a short story with specific characteristics that describes a social situation, concept, or social skill using a format that is meaningful for persons with autism spectrum disorders" (Tarnai & Wolfe, 2008. p. 30). Although Tarnari & Wolfe suggested the use of Social Stories for the purposes of sexuality education, they have not been organized into a specific curriculum or empirically tested in this context. Additionally there are several curricula developed for individuals with intellectual or developmental disabilities (not specifically ASD or not specifically adolescents) such as Planned Parenthood's "Sexuality Education for Adults with Developmental Disabilities" (McLaughlin, Topper, & Lindert, 2009) , James Stanfield's "Life Horizons" (Kempton, 1999), and Public Health of Seattle and King County's "F.L.A.S.H." (Stangle, 2006). With the exception of single subject studies, there is no data on how effective these programs are in increasing sexual knowledge (Whitehouse & McCabe, 1997). Furthermore, educators may vary with regards to whether they have access to these materials. Also, as both parents and educators often adapt and create learning supports independently, it is reasonable to assume that they are doing so with regards to sexuality topics. One goal of this study was to identify the types of teaching practices that are being employed by educators.

Transformative Learning and Teaching Behavior

The program examined in this study, The Birds and the Bees, was based on a transformative learning process. Mezirow (1997) explains that in a transformative process of learning: a person feels disoriented, examines her or his thoughts and feelings, critically examines her or his internalized role, relates to others, explores options for new ways of acting, builds competence in new roles, plans a new course, acquires skills necessary to achieve this course and then participates in society within this new role. This transformative learning experience highlights the connection between paradigms and behavior through a series of conscious steps. Transformative learning is instrumental and communicative, meaning it centers

on task oriented problem solving and understanding the meaning of others (Taylor, 1998). A one day workshop has limited scope; however, if teachers are inspired to start developing expertise independently, the impact of the workshop can increase exponentially through non-formal learning experiences (Eraut, Alderson, Cole, & Senker, 2000). Additionally, developing expertise can give an indication of quality of education being delivered. Further, this outcome is directly related to the theoretical framework of the study which addresses a shift in roles as it is a component of exploring options to find new ways of acting (Mezirow, 1997). Thus one outcome being assessed in the current study is the extent to which educators seek additional information, resources, or training as a result of participating in the Birds and Bees.

Transformative learning has been utilized and examined in the context of professional development and is specifically useful for training educators on how to implement sexuality education. King (2004) found that educators became more open-minded towards others and themselves, developed a reflective orientation, and understood students better after undergoing a transformative learning experience. These outcomes are especially critical for education around sensitive topics. Trimble (2009) suggests that sex education should be a transformative learning experience for adolescents and adults. Previous suggestions for sex education for individuals with ASD focus on concrete knowledge acquisition (Koller, 2000) but not necessarily how to tackle the nuanced aspects of sexuality and structuring the process of reflection. Pietrykowski's (1996) examination of power and knowledge is especially relevant to educators working with individuals with ASD; if educators are seen as sexual experts holding all the sexual knowledge, individuals with ASD may be less inclined take ownership over their own sexual autonomy. As human sexuality is a complex domain with critical implications for identity, comprehensive sexuality education for individuals with ASD encompasses Mezirow's (1997) transformative leaning experience. It means supporting individuals as they feel disoriented about sexuality, helping them to explore and understand their own sexual thoughts and feelings, guiding them through examining their internalized role as sexual beings, teaching them about relating to others, educating about ways of acting within the context sexual relationships, and building competencies related to their sexual identity. Furthermore, educators who are not engaged in a similar transformative process may not be able to connect with individuals with ASD in a way that is relevant to them (Tervalon & Murray-Garcia, 1998). Thus, both utilizing transformative

learning method and modeling a transformative experience is critical for teaching professionals to deliver sex education.

Providing Ongoing Support Online

As in many areas, resources for enhancing sexuality education are limited. Creating effective educators requires programmatic support that can change complicated behaviors in a limited amount of time with a limited amount of resources. This, coupled with technological innovations, has opened the door to online learning including the area of professional development. This study examined two common online mediums that both offer the opportunity to connect educators learning to deliver sexuality education to individuals with ASD with additional content outside the face-to-face workshop: email and Facebook. Both of these mediums provide the opportunity to create an online learning community, "a learning atmosphere, a context providing a supportive system from which sustainable learning processes are gained through a dialogue and collaborative construction of knowledge by acquiring, generating, analyzing, and structuring information" (Carlen & Jobring, 2005, p. 273). Although email and Facebook provide an opportunity for an online learning community, Facebook enables one that is more consistent with the idea of a transformative learning experience. On Facebook, participants theoretically have more opportunity to participate in role exploration within their social networks by virtue of an individual's network having access to information shared via Facebook. For example, one's "friends" will be able to see that you "like" a page associated with teaching sexuality; this is consistent with Mezirow's (1997) idea of participating in society under a new role.

Current Study

For this study, we utilized a pretest posttest design with random assignment between two treatment conditions. All participants attended a one day workshop based on guidelines from SIECUS and that utilized a transformative learning model. Data were collected from participants via an online survey before they participated in a one-day workshop, and again one month after the workshop. During the interim, participants were randomly assigned to receive Facebook or email updates that included additional information about teaching human sexuality to individuals with ASD via a link to a website (asdsexed.org). This project was approved by the Internal Review Board at the University of Illinois at Urbana-Champaign. We had three goals. First, we examined the current capacity for teaching individuals with ASD about sexuality. Second,

we examined the outcomes of a transformative learning experience. Third, we examined how differences in online delivery methods moderated the effects of a face-to-face learning experience. Data were collected on the current teaching capacity, sexual attitudes and values, instructional behavior, and online content satisfaction. Specifically we asked

- What are the practices of current sexuality educators in terms of the contexts of their instruction, the content and teaching methods they use, and the climate for providing sexuality education?
- What are the outcomes of face-to-face training and online, ongoing support in terms of changes in attitudes, values, and the degree to which participants spend more time participating in professional development activities?
- How are outcomes moderated by how ongoing support was delivered (i.e., email versus Facebook)?

Chapter Two: Methodology

Participants

Participants were recruited from the approximately 300 individuals who registered for the Birds and the Bees workshop. The workshop was hosted by The Autism Program (TAP), an Illinois state wide initiative to address the needs of individuals with ASD and their families. TAP facilitates relationships between 27 agencies and universities, and also sponsors five training centers. The Birds and the Bees was conducted at eight of their centers in 2012. When participants registered for the program, they were invited to participate in the study. In order to participate, participants were required to use email, use Facebook, and work with individuals with ASD. The invitation received 59 responses, all of whom were then sent a link to the pretest survey, and were randomly assigned to one of the two ongoing support conditions; 55 individuals completed the first survey; and 43 individuals completed the second survey (n = 21 email group, n = 22 Facebook group).

Incentives

Special educators are required by the Illinois Board of Special Education (IBSE) to receive continuing education units (CEU) in order to show they are maintaining professional development throughout the year. Several other professions require similar continuing education. Several types of continuing education credits were issued for any individuals participating in The Birds and the Bees workshop. TAP charged $20 for the workshop, which included lunch and CEUs. Participants who completed the pretest and posttest received a $20 Amazon gift card.

Program Description

Face-to-face program. The Birds and the Bees was a one day workshop that introduced comprehensive sexuality education to any community members interested in teaching human sexuality to individuals with developmental and intellectual disabilities such as parents, teachers, other school employees (i.e. social workers and aides), and community professionals (i.e. therapists, occupational therapists). The workshop specifically attempted to broaden educator attitudes, teach practical strategies for instruction, and stimulate problem solving about difficult situations with regard to areas of sexuality for students with ASD. The workshop provided content and models for teaching comprehensive sexuality education, linked educators to additional resources, and facilitated educators' exploration of their own values and experiences related to sexuality education. The workshop was consistent with SIECUS guidelines.

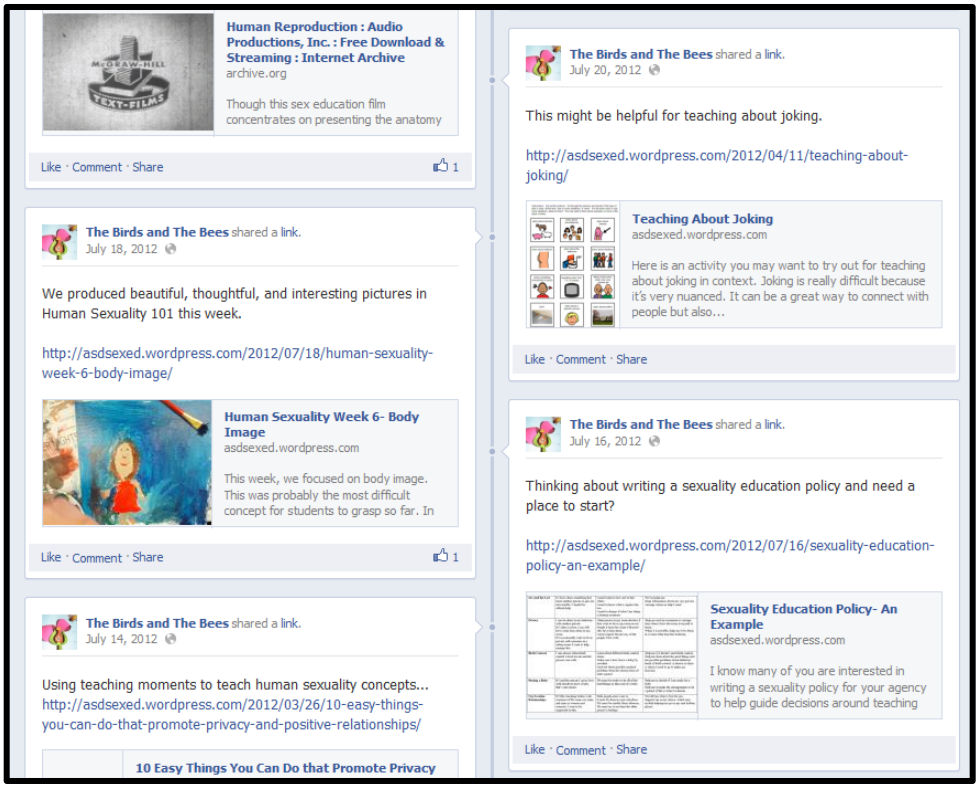
The Birds and the Bees was taught by the author, a trained professional with several years of experience teaching sexuality education to individuals with ASD, as well as training educators. Participants received an informational booklet as part of the workshop. The Birds and the Bees incorporated information from SIECUS; however, the large majority of the seminar was adapted by the author from a three-day workshop developed by the Planned Parenthood League of Massachusetts. It was shortened due to stakeholder feedback that a three-day workshop would likely prove unfeasible for special educators to attend. The one-day workshop had been previously implemented as a service to the community before being re-purposed for research purposes. Although the workshop had not been previously evaluated, satisfaction surveys had been very positive. In this study, one participant commented "It was excellent. Well organized, thought provoking, and kept my attention." Another commented, "I really enjoyed it and thought it was full of valuable information and ideas for how to address various elements of sexuality with students who have ASD." A third commented, "I thought this was a very informative workshop and gave me the chance to think about sexuality education in some different ways." Negative feedback was in regards to the desire to have targeted information for specific contexts.

The Birds and the Bees was designed to be a transformative learning experience in several ways. Over an hour of the workshop is dedicated to examining thoughts and feelings related to disability and sexuality. Additionally several hours of the workshop focused on skills related to participants' roles as sexuality educators such as lesson planning, instructional methods, and background information. Participants spent time planning how they would use these skills in the future. The workshop was instrumental in that participants were required solve specific solutions such as one small group activity where participants were asked to utilize behavior change theories to plan support around a sexual challenging situation (e.g. plan how you would respond if you were working with someone who does not understand why he gets in trouble for staring at his female classmate when the student insists "it is not hurting her"). The workshop was communicative in that participants were engaged with understanding the meaning of others, such as when they had to explain why someone might agree with a value statement that they themselves disagreed with.

Ongoing online component. To evaluate the effectiveness of an online presence on learning objectives, the Birds and the Bees used a website, Facebook, and email. The website

served as a library in which educators could access educational resources. For the online treatment conditions, participants either received an email or Facebook updates. Both updates informed participants of recent developments in sexuality education, places to find additional resources, and tools for teaching human sexuality. All updates were in the form of recent posts to the website (which were controlled during the experiment). Due to the differences in best practices for email and Facebook delivery, although the content was the same, the timing was slightly different for each condition. In the Facebook condition, there were three posts during the week delivering content[3]. These updates were typically on Mondays, Wednesdays, and Fridays in the late afternoon unless there were holidays on these days (Figure 1). In the email condition, participants received one email each week with three pieces of information[4]. These emails were typically sent on Fridays in the late afternoon (Figure 2).

Figure 1. Example of weekly Facebook posts



[3] Facebook recommends posting about once per day, but due to the limited resources of this project posting was limited to 3 days per week (Facebook, n.d.).

[4] We used a plain text email, however, we did consult with MailChimp email marketing plan guidelines (MailChimp, n.d.)

Figure 2. Example of a weekly email post

Program process monitoring. Traditional program process monitoring includes issues of retention and fidelity. As this was a one-day workshop, with all sessions being conducted by the same personnel with the same materials, fidelity monitoring was limited to a standard satisfaction survey that is utilized with all TAP programming; there were no satisfaction issues. Additionally, case notes were taken that included any particularly unusual delivery factors; however, none were noted. Group sizes ranged widely from 16 to 60 participants. No identifying information was collected as part of participation in the study, so issues of program retention could not be addressed in the analysis; however, very few workshop participants left before the workshop was complete.

In terms of the online components, five individuals reported never reading email or Facebook updates and two responded that they only saw them once or twice. Of the individuals who never or rarely read the messages, three said they did not get the message, two said it was not convenient on the device they were using, and one responded that they do not look at their newsfeed on Facebook often. There was some interaction with the online content either through replying to an email, commenting on Facebook, "liking" on Facebook, or commenting on the

website; however this information was not used in the analysis. Interactions were very rare and we did not have identifiers for the Facebook participants.

Measures

Data were collected in three domains via self-report online questionnaire: current instructional practices, instructional outcomes, and online content satisfaction. There is a lack of reliable and valid sexuality measures, especially with regards to normative sexual experience and behavior. Many measurements of sexual knowledge, values, and behavior have been designed to be used with special populations such as with perpetrators of sexual violence, victims of sexual violence, or individuals with HIV or AIDs (Davis, Yarber, Bauserman, Shreer, & Davis, 1998). For this reason a tool was developed to specifically target the goals of The Birds and the Bees when no reliable measures could be found. The entire measurement tool underwent a cognitive interview process to reduce social cognitive problems with survey design. A cognitive interview is a process of assessing if the perceived meaning of the questions is consistent with intended meaning by asking interviewees to think out loud as they are answering (Ryan, Gannon-Slater, Culberston, 2012). The measurement tool was also reviewed by experts in teaching human sexuality to individuals with ASD. Overall, both experts found the tool to be valid and comprehensive; their suggestions were included in the final revision of the assessment tool. See Appendix 1 for the full survey.

Current instructional practices. Participants were asked about current instructional practices in terms of context, content, and climate.

Context. Participants were asked about the contexts in which they teach in terms of *whether they had taught students with ASD*, their *profession*, the *number of students they worked with* on average, and the *time they spent with each student* via four multiple choice items. Participants were also asked about the *instructional setting*, *age of students*, and students' *severity of ASD symptoms* via six multiple response items.

Content. Participants were asked about the *type of content* that they used by asking how often they develop materials, adapt materials, and use a professionally developed curriculum, rated on a five point scale that ranged from never to very often. They were asked to identify which of the 39 SIECUS *topics* they had taught via a multiple response item. Finally they were asked which *teaching methods* they used via a multiple response item. Responses included

lecture, discussion, brainstorming, panels, video, small groups, role playing, readings, report back sessions, worksheets, surveys, interactive lessons, demonstrations, and visual supports.

Climate. Participants were asked which of the 39 SIECUS topics were *banned topics* at their place of employment via a multiple response item. They were also asked if there was a *sexuality policy* at their place of employment via a multiple choice item. Participants were asked about *support for teaching sexuality education* via a 3 items on a five point scale ranging from strongly disagree to strongly agree with an additional "don't know" option: "My administration/organization is supportive of teaching sexuality education to individuals with ASD", "Individuals with ASD are interested in sexuality education", and "Parents seem supportive of their children with ASD receiving sexuality education". Two respondents selected the "don't know" option and those responses were recoded as missing. Participants were asked about *need for sexuality education* via a four item scale with a possible range of scores from 1, extremely unimportant to 6 extremely important with an additional not applicable option. The scale asked about sexual exploitation, right to information, sexually inappropriate behavior, and facilitating intimate relationships. Cronbach's αs for the total scale were .92 (pretest) and .86 (posttest). Participants were asked about the *endorsement of SIECUS*. For each of the 39 SIECUS topics they were asked "How important to you is each of the human sexuality content areas listed below when teaching individuals with ASD?" They could answer on a six point scale from extremely unimportant to extremely important. Cronbach's αs for the total scale were .94 (pretest) and .94 (posttest).

Attitudes and values. Attitudes and values were used to assess the climate of current instructional practices and were examined as a potential outcome of the workshop. There were two scales related to values. The first scale assessed attitudes in regards to the *importance of specific outcomes for individuals with ASD regarding sexuality*. Respondents were asked to rate the importance of 40 outcomes for individuals with ASD based on SIECUS guidelines on a scale from 1, extremely unimportant to 6, extremely important. Items included: develop and maintain meaningful relationships, exhibit skills that enhance personal relationships, and engage in sexual relationships that are consensual, non-exploitative, honest, pleasurable, and protected. The entire set of items are displayed in Table 1.

Table 1

Means and Standard Deviations for the Importance of Specific Outcomes for Individuals with ASD regarding sexuality Items at Pretest and Posttest

	Pretest		Posttest	
	M	SD	M	SD
1. Respect one's one body.	5.52	0.86	5.54	0.75
2. Seek further information about reproduction as needed.	4.98	0.98	5.12	0.93
3. Affirm that human development includes sexual development, which may or may not include reproduction or sexual experience.	4.92	0.96	5.05	0.87
4. Interact with all genders in respectful and appropriate ways.	5.43	0.91	5.39	0.70
5. Refrain from engaging in any sexual activity. – RS	4.09	1.43	4.12	1.23
6. Affirm one's own sexual orientation and respect the sexual orientations of others.	4.94	0.94	4.98	0.85
7. Affirm one's own gender identities and respect the gender identities of others.	4.94	0.94	4.92	0.92
8. Express love and intimacy in appropriate ways.	5.33	0.89	5.48	0.68
9. Develop and maintain meaningful relationships.	5.52	0.86	5.58	0.71
10. Avoid exploitative or manipulative relationships.	5.54	0.95	5.56	0.68
11. Make informed choices about family options and relationships.	5.33	0.89	5.40	0.67
12. Exhibit skills that enhance personal relationships.	5.26	0.89	5.35	0.74
13. Identify and live according to one's own values.	5.19	0.99	5.30	0.69
14. Take responsibility for one's own behavior.	5.50	0.93	5.36	0.71
15. Practice effective decision-making.	5.44	0.90	5.42	0.71
16. Develop critical-thinking skills.	5.19	1.04	5.26	0.72
17. Communicate effectively with family, peers, and romantic partners.	5.39	0.92	5.41	0.82
18. Enjoy and express one's sexuality throughout life.	5.04	0.99	5.15	0.80

Table 1 (continued)

	Pretest	Posttest		Pretest
	M	SD		M
19. Express one's sexuality in ways that are congruent with one's values.	5.06	1.02	5.15	0.77
20. Enjoy sexual feelings without necessarily acting on them.	4.61	1.19	4.87	0.98
21. Discriminate between life-enhancing sexual behaviors and those that are harmful to self and/or others.	5.28	0.90	5.40	0.90
22. Express one's sexuality while respecting the rights of others.	5.35	0.93	5.37	0.75
23. Avoid relationships that may become sexual. – RS	4.43	1.27	4.26	1.29
24. Seek new information to enhance one's sexuality.	4.45	1.10	4.45	1.20
25. Engage in sexual relationships that are consensual, non-exploitative, honest, pleasurable, and protected.	5.11	1.02	5.34	0.88
26. Practice health-promoting behaviors such as regular check-ups, breast and testicular self-exam, and early identification of potential problems.	5.39	0.96	5.51	0.75
27. Use contraception effectively to avoid unintended pregnancy.	5.31	1.03	5.46	0.81
28. Avoid contracting or transmitting a sexually transmitted disease, including HIV.	5.52	0.86	5.56	0.71
29. Act consistently with one's own values when dealing with an unintended pregnancy.	4.94	1.23	5.22	0.91
30. Seek early prenatal care.	5.11	1.06	5.32	0.79
31. Help prevent sexual abuse.	5.50	0.95	5.58	0.68
32. Demonstrate respect for people with different sexual values.	5.04	1.03	5.20	0.81
33. Exercise democratic responsibility to influence legislation dealing with sexual issues.	4.04	1.36	5.23	1.10
34. Assess the impact of family, culture, media, and societal messages on one's thoughts feelings, values, and behaviors related to sexuality.	4.38	1.21	4.54	1.08

Table 1 (continued)

	Pretest	Posttest		Pretest
	M	SD		M
35. Refrain from expressing sexual thoughts or ideas. –RS	4.44	1.45	4.49	1.36
36. Critically examine the world around them for biases based on gender, sexual orientation, culture, ethnicity, and race.	3.80	1.41	4.15	1.22
37. Promote the rights of all people to accurate sexuality information.	4.54	1.19	4.66	1.09
38. Avoid behaviors that exhibit prejudice and bigotry.	5.11	0.93	5.02	0.91
39. Reject stereotypes about the sexuality of different populations.	4.69	1.13	4.83	0.97
40. Educate others about sexuality.	4.15	1.34	4.32	1.23

Note: The valid N listwise was 44 at pretest and 31 at posttest . RS indicated that the item was reversed scored.

To look for potential subscales related to the first attitude scale, we performed an exploratory factor analysis using principle components extraction with varimax rotation on all 40 importance of outcomes items. Factor analysis was done using the pretest data as the training experience may have altered participant values. Missing data were eliminated listwise. For the importance items the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .32 indicating a factor analysis was inappropriate given the small sample size, and will not be reported. We calculated the mean of all items as a single scale. Cronbach's αs for the total scale were .97 (pretest) and .97 (posttest).

Three other scales were developed to assess *SEICUS values on sexuality* for individuals with ASD. Respondents were asked to rate how much they agreed or disagreed with 21 items regarding sexuality. For example, one item was, "For individuals with ASD, sexuality is a natural and healthy part of living." Items were rated on a five point scale from strongly disagree to strongly agree. Items are presented in Table 2.

To look for potential subscales related to values we performed an exploratory factor analysis using principle components extraction with varimax rotation on the 21 values items. Factor analysis was performed on the pretest data as the training experience may have altered participant values. Missing data were eliminated listwise. The KMO for the 21 values items was .79 and deemed appropriate for interpretation. Results indicated a 5-factor solution that explained

74% of the total variance in values towards sexuality and individuals with ASD (see Table 2 for the results of the factor analysis).

Table 2

Factor Analysis of Values Related to Sexuality and Individuals with ASD on Five Varimax Rotated Principle Components

	I	*II*	*III*	*IV*	*V*
Proportion of variance explained	40%	13%	10%	6%	5%
Eigenvalues	8.43	2.67	2.01	1.33	1.11
1. People with ASD have dignity and self-worth.	**.78**	.19	.15	-.01	-.22
2. Children with ASD should be loved and cared for.	**.93**	.25	.04	-.06	-.06
3. Young people with ASD should view themselves as unique and worthwhile individuals.	**.91**	.25	-.00	.00	-.05
4. For individuals with ASD, sexuality is a natural and healthy part of living.	**.87**	.22	.15	.01	-.01
5. People with ASD should be strongly discouraged from sexual activity- RS	**.68**	-.19	.01	.35	.44
6. Sexuality includes physical, ethical, social, spiritual, psychological, and emotional dimensions.	**.82**	.26	.30	-.01	.01
7. Individuals with ASD can express their sexuality in varied ways.	**.77**	.30	.23	.05	.09
8. Parents should be the primary human sexuality educators of their children with ASD.	.08	.07	**.86**	-.08	-.07
9. Children with ASD should primarily learn about human sexuality at school. –RS	.01	-.00	-.02	.31	**.67**
10. Families should provide children with ASD's first education about human sexuality.	.13	.31	**.82**	-.08	.06
11. Families should share their values about human sexuality with their children with ASD.	.30	.26	**.63**	.14	-.19
12. People with ASD should respect and accept the diversity of values and beliefs about sexuality that exist in a community.	**.44**	.42	.40	.-04	-.29
13. Sexual relationships should be reciprocal, based on respect, and should never be coercive or exploitive.	.49	**.69**	.11	.08	-.20
14. People with ASD have the right to make responsible sexual choices.	.35	**.82**	.05	-.01	.05
15. Individuals, families, and society benefit when children with ASD are able to discuss sexuality with their parents and/or trusted adults.	.24	**.75**	.32	-.02	.04

Table 2 (continued)

	I	*II*	*III*	*IV*	*V*
16. Young people with ASD develop their values about sexuality as part of becoming adults.	.12	**.65**	.29	.13	-.24
17. For young people with ASD, exploring sexuality is not part of the natural maturity process. –RS	-.02	.11	.11	**.89**	.12
18. Early involvement in sexual behaviors poses risks.	.04	**.49**	.34	-.47	.32
19. Abstaining from sexual intercourse is the most effective method of prevention pregnancy and STD/HIV.	.24	.24	**.43**	.02	-.57
20. Young people with ASD who are involved in sexual relationships need access to information about healthcare services.	.24	**.80**	.14	.16	-.08
21. If nobody talks to individuals with ASD about sex they probably won't think about it. - RS	.04	.12	-.13	**.84**	.21

Note: N = 55. The highest factors loading for each item are listed in boldface. RS indicated that the item was reversed scored.

The first factor consisted of eight items (with loadings > .40). One item (No. 5 on Table 2) cross-loaded onto the fifth factor. Another item, (No. 12 on Table 2) cross-loaded onto the second and third factor; this item was dropped because the magnitude was similar on each of the factors. The second factor consisted of six items (with loading > .40). No. 13 on Table 2 cross-loaded onto the first factor. The third factor consisted of four items with loadings greater than .40; none of these items cross-loaded. The fourth factor consisted of two items (with loading > .80). The fifth factor consisted of one item. Based on these results the fourth and fifth factors were dropped and three factors of sexuality values and individuals with ASD were created. These factors were called *core values* (7 items), *sexual expression* (6 items), and *traditional values* (4 items) based on the themes represented in the items. Each of the subscales represents a dimension of the values inherent to the training experience. Cronbach's αs for the subscales were .93, .84, and .77 respectively.

Instructional behavior. To assess instructional behavior in terms of developing expertise, respondents were asked "In the past month, how often have you engaged in each of following activities in regards to human sexuality and individuals with ASD?" Items covered topics such as *knowledge seeking* (5 items, Cronbach's α = .87 pretest and .76 posttest) , *collaborating* (5 items, Cronbach's α = .94 pretest and .93 posttest), *utilizing curriculum* (3 items, Cronbach's α = .91 pretest and .95 posttest), and *advocacy* (4 items, Cronbach's α = .86 pretest and .83 posttest). Items were rated on a five point scale with the options never, rarely,

sometimes, frequently, and very often (see Table 3 for all items). *Readiness to teach sexuality* was assessed by asking participants about the degree to which they felt ready to teach human sexuality to individuals with ASD on a five point scale from strongly disagree to strongly agree. Two items on the scale were reversed coded. Cronbach's αs were .84 for the pretest and .79 for the posttest (see Table 4 for all times).

Table 3

Means and Standard Deviations for the Developing Expertise Items at Pretest and Posttest

	Pretest		Posttest	
	M	SD	M	SD
Knowledge Seeking				
1. Taken classes	1.25	0.71	1.70	0.99
2. Attended workshops	1.35	0.76	2.30	0.91
3. Did research on the internet	2.30	1.25	2.76	1.04
4. Read articles or books	2.17	1.19	2.39	1.05
5. Read updates from a listserv, RSS, or online group	1.54	1.00	1.88	0.97
Collaborating				
1. Planned lesson with colleagues	1.92	1.24	2.12	1.19
2. Discussed teaching practices with colleagues	2.20	1.34	2.46	1.05
3. Brainstormed how to best support specific individuals with colleagues	2.58	1.39	2.78	1.01
4. Acted as a coach or mentor to colleagues	1.77	1.20	2.00	1.40
5. Received coaching or mentoring from colleagues	1.91	1.11	2.00	1.10
Utilizing Curriculum				
1. Utilized a professionally developed curriculum	1.69	1.20	1.95	1.28
2. Adapted a curriculum to better meet your students' needs	1.98	1.45	2.24	1.45
3. Developed instructional materials (i.e. visual supports)	1.93	1.40	2.29	1.44
Advocacy				
1. Advocated with administrators/management	2.22	1.27	2.32	1.21
2. Advocated with parents	2.31	1.32	2.27	1.21
3. Participated on a committee or task force	1.66	1.29	1.76	1.26
4. Supported self-advocates	2.00	1.27	2.32	1.37

Note: The valid N listwise was 48 at pretest and 40 at posttest.

Table 4

Means and Standard Deviations for the Readiness to Teach Items at Pretest and Posttest

	Pretest		Posttest	
	M	SD	M	SD
1. I feel prepared to teach human sexuality to individuals with ASD.	2.19	1.08	3.20	1.03
2. The idea of teaching human sexuality to individuals with ASD seems overwhelming. –RS	3.02	1.06	3.25	0.98
3. I feel comfortable with teaching human sexuality to individuals with ASD.	2.94	0.96	3.37	0.80
4. There is a lot I still need to learn about teaching human sexuality to individuals with ASD. –RS	1.59	0.77	1.71	0.68
5. I feel confident in my ability to teach human sexuality to individuals with ASD.	2.74	1.07	3.27	0.78

Note: The valid N listwise was 54 at pretest and 40 at posttest. RS indicated that the item was reversed scored.

Online content use. Three items were used to assess *satisfaction with the online component* of the training experience. The first item asked, "During the past month, you received Facebook [email] updates with information about teaching human sexuality. How often did you read these messages?" on a five point scale with answers ranging from never to always. The second item asked, "How often did you click on the link in Facebook [email] to view additional information online?" on a five point scale with options ranging from never to always. The third item asked, "In general, how useful were the Facebook [email] updates?" on a five point scale with items ranging from very un-useful to very useful.

Analysis Plan

To answer the first research question, "What are the practices of current sexuality educators in terms of the contexts of their instruction, the content and teaching methods they use, and the climate for providing sexuality education?", we performed a descriptive analysis using the measures related to current instructional practices. To answer the second and third research questions, "What are the outcomes of face-to-face training and online, ongoing support in terms of changes in attitudes, values, and the degree to which participants spend more time participating in professional development activities?" and "How are outcomes moderated by how ongoing support was delivered (i.e., email versus Facebook)?" we conducted two sets of

analysis. The preliminary analysis looked at chi-square and t-tests for all pretest comparison groups and correlates between scales. The secondary analysis consisted of a series of repeated measure ANOVAs with type of online support as a between-subjects factor. Data that were missing were excluded listwise.

Chapter Three: Results

Current Instruction

This section describes the teaching practices used by participants in providing education to individuals with ASD in the previous month. Current instructional practices were examined using only the pretest data (N = 55).

Context. There were 12 individuals among the participants who were already teaching human sexuality to individuals with ASD and they represented a variety of professional disciplines: special educators, school social workers, a residential adult service provider, other adult service providers, a non-school based social worker, and a student. Most taught in one-on-one settings, but some did work with groups. None of them taught in general or special education classrooms. They worked with children before 5th grade through adult individuals. In the previous month some had not worked with any students, but others worked with as many as six students. They worked with students on average anywhere between one hour and eight hours (none had worked with a student on sexuality topics more than eight hours in a month). Their students represented the entire autism spectrum however most of their students had marked and severe communication deficits, needed substantial to very substantial communication support, had noticeable to severe behavioral difficulties, and needed some to substantial behavioral support. Often, the same educator was serving different individuals with different levels of need. See Table 5 for a summary.

Table 5

Frequencies for Factors Related to the Contexts of Current Instruction

	N	Percent
Profession		
Special educator	3	25.0
School social worker	3	25.0
Social worker (not school based)	1	8.3
Residential adult service provider	1	8.3
Other adult service provider	3	25.0
Undergraduate student	1	8.3
Setting		
Individually	10	71.4
Group	4	28.6

Table 5 (continued)

	N	Percent
Age		
Before 5th grade	2	7.1
5th grade	3	10.7
6th grade	2	7.1
7th grade	2	7.1
8th grade	2	7.1
9th grade	3	10.7
10th grade	2	7.1
11th grade	2	7.1
12th grade	2	7.1
18-21 in high school students	2	7.1
18-21 not in high school	1	3.6
Over 21	5	17.9
Severity of ASD		
Communication skills		
No or few deficits	1	1.3
Noticeable deficits (like difficulty reading body language)	3	3.9
Marked deficits (like difficult with the back and forth of unscripted conversations)	8	10.4
Severe deficits (has limited verbal ability)	8	10.4
Communication support		
Requires some support (such as extra processing time)	4	5.2
Requires substantial support (such as direct instruction on communication skills and prompts)	9	11.7
Requires very substantial support (such as the use of a communication device)	7	9.1
Rituals and repetitive behaviors		
Do not interfere or interferes very little	1	1.3
Interfere in some contexts (may only be a problem when anxious)	3	3.9
Interfere in many contexts (may only be interested in engaging in preferred activities)	8	10.4
Interferes in almost all contexts (may become upset, even self-injurious to small changes in routine)	8	10.4
Support for rituals and repetitive behaviors		
Requires little or no support	1	1.3

Table 5 (continued)

	N	Percent
Requires some support (may need to be prepared for new situations)	5	6.5
Requires substantial support (may have a specific plan for introducing new activities)	7	9.1
Requires very substantial support (may need a controlled environment)	6	7.8

Content. All the educators who reported that they were currently conducting education adapted curriculum and developed their own materials, although they varied in the degree to which they did this (from rarely to very often). Only two-thirds of the educators were using a professionally developed curriculum. Although only 12 respondents reported that they were currently teaching human sexuality, when they were asked to report on what they taught based on content area, 38 reported teaching a content area related to human sexuality. This reflects that they either taught in the past or did not initially include the topic under the umbrella of human sexuality. Educators taught all 39 of the SIECUS content areas, however, some were much more commonly taught than others. Decision making (94.7%), communication (94.7%), help seeking (92.1%), friendship (89.5%), families (84.2%), assertiveness (81.6%), values (71.1%), negotiation (65.8%), romantic relationships (60.5%), puberty (57.9%), and love (52.6%) were the most commonly taught topics. The participants taught an average of ten topic areas (see Table 6). Educators used a variety of methods (Table 7) with discussions, role plays, and visual supports as the most commonly used and demonstrations, lectures, small groups, and report backs were the least commonly used.

Table 6

Content Topics Taught and Endorsement of in Terms of Importance

Topic	N Taught	Percent of Cases (n = 38)	Mean (SD)
Human development			
Reproductive and sexual anatomy and physiology	12	31.6	4.48 (0.82)
Puberty	**22**	**57.9**	4.91 (0.90)
Reproduction	**10**	**47.4**	4.66 (0.78)
Body image	18	26.3	4.67 (0.80)
Sexual orientation	7	18.4	4.35 (0.87)
Gender identity	4	10.5	4.41 (0.92)

Table 6 (continued)

Topic	N Taught	Percent of Cases (n = 38)	Mean (SD)
Relationships			
Families	**32**	**84.2**	5.02 (0.88)
Friendship	**34**	**89.5**	**5.17 (0.82)**
Love	**20**	**52.6**	5.04 (0.85)
Romantic relationships and dating	**23**	**60.5**	5.04 (0.95)
Marriage and lifetime commitments	9	23.7	4.72 (0.98)
Raising children	6	15.8	4.61 (1.14)
Personal skills			
Understanding own values	**27**	**71.1**	**5.13 (0.91)**
Decision making	**36**	**94.7**	**5.30 (0.82)**
Communication	**36**	**94.7**	**5.41 (0.63)**
Assertiveness	**31**	**81.6**	**5.08 (0.83)**
Negotiation	**25**	**65.8**	4.96 (0.91)
Help seeking	**35**	**92.1**	**5.35 (0.85)**
Sexual behavior			
Sexuality throughout life	6	15.8	4.70 (0.88)
Masturbation	16	42.1	4.87 (0.86)
Shared sexual behavior (sexual behavior with another person)	9	23.7	4.83 (0.95)
Sexual abstinence	7	18.4	4.44 (0.90)
Human sexual response	6	15.8	4.41 (0.90)
Sexual fantasy	3	7.9	3.94 (1.02)
Sexual dysfunction	1	2.6	4.02 (1.06)
Sexual health			
Reproductive health	11	28.9	4.83 (1.10)
Contraception	11	28.9	**5.20 (0.88)**
Pregnancy and prenatal care	5	13.2	4.80 (1.11)
Abortion	2	5.3	4.46 (1.02)
Sexuality transmitted diseases	8	21.1	**5.13 (0.97)**
HIV and AIDS	7	18.4	**5.11 (0.97)**
Sexual abuse, assault, violence and harassment	9	23.7	**5.41 (0.98)**
Society and culture			
Sexuality and society	8	21.1	4.67 (0.87)
Gender roles	11	18.4	4.26 (0.96)

Table 6 (continued)

Topic	N Taught	Percent of Cases (n = 38)	Mean (SD)
Sexuality and the law	7	28.9	4.69 (0.93)
Sexuality and religion	1	2.6	3.96 (1.03)
Diversity (of sexual attitudes and behaviors, discrimination)	2	5.3	4.39 (0.92)
Sexuality and the media	3	7.9	4.28 (0.90)
Sexuality and the arts	2	5.3	3.96 (0.98)

Note: Topic headings represent SIECUS categories and were used to present the content areas to respondents. The most commonly taught topics are in bold.

Table 7

Frequencies of Teaching Methods Used

Teaching Method	N	Percent of Cases (n = 17)
Lectures	2	11.8
Discussions	12	70.6
Brainstorms	5	29.4
Videos	4	23.5
Small groups	2	11.8
Role plays	9	14.1
Readings	3	17.6
Report backs	2	11.8
Worksheets	7	41.2
Interactive activities	4	23.5
Demonstrations	1	5.9
Visuals	10	58.8
Other practices	3	17.6

Climate. Very few respondents (n = 4) reported that topics were banned from being taught. The topics that were banned included reproduction, sexual orientation, gender identity, masturbation, shared sexual behavior, human sexual response, sexual fantasy, sexual dysfunction, contraception, and abortion. Eleven participants (20.0%) reported that there was a sexuality policy where they worked; 28 participants (50.9%) reported that there was not a policy; 15 participants (27.3%) did not know. When rated on a five point scale from strongly disagree to strongly agree most participants thought there was administrative or organizational support for teaching human sexuality (M = 4.15, SD = 0.82), that individuals with ASD were supportive

of human sexuality education (M = 3.84, SD = 0.73), and that parents were supportive of sexuality education (M = 3.36, SD = 1.01) but less so than administrators. Respondents endorsed SIECUS recommend educational content (see Table 7); on a six point scale from extremely unimportant to extremely important the mean response was 4.72 (SD = 0.66) across all content areas. There was variation across content areas; sexuality and the arts (M = 3.96, SD = 0.98), sexuality and religion (M = 3.96, SD = 1.03), and sexual fantasy (M = 3.94, SD = 1.02) had some of the lowest means while sexual abuse (M = 5.41, SD = 0.98), communication (M = 5.41, SD = 0.63), and help seeking behavior (M = 5.35, SD = 0.85) had the highest (see Table 8). In terms of why individuals need sexuality education, respondents saw risk as a key factor (M = 5.21, SD = 1.24 on a six point scale); that individuals have a right to the information (M = 4.89, SD = 1.25), to prevent sexually inappropriate behavior (M = 4.96, SD = 1.21), and because individuals need pro-social skills (M = 4.79, SD = 1.32).

Table 8

Mean and Standard Deviations of SIECUS Topics by Order of Perceived Importance

Topic	Mean	SD
Communication	5.41	0.63
Sexual abuse, assault, violence and harassment	5.41	0.98
Help seeking	5.35	0.85
Decision making	5.30	0.82
Contraception	5.20	0.88
Friendship	5.17	0.82
Understanding own values	5.13	0.91
Sexuality transmitted diseases	5.13	0.97
HIV and AIDS	5.11	0.97
Assertiveness	5.08	0.83
Love	5.04	0.85
Romantic relationships and dating	5.04	0.95
Families	5.02	0.88
Negotiation	4.96	0.91
Puberty	4.91	0.90
Masturbation	4.87	0.86
Shared sexual behavior (sexual behavior with another person)	4.83	0.95
Reproductive health	4.83	1.10

Table 8 (continued)

Table 8 (continued)

Topic	Mean	SD
Pregnancy and prenatal care	4.80	1.11
Marriage and lifetime commitments	4.72	0.98
Sexuality throughout life	4.70	0.88
Sexuality and the law	4.69	0.93
Body image	4.67	0.80
Sexuality and society	4.67	0.87
Reproduction	4.66	0.78
Raising children	4.61	1.14
Reproductive and sexual anatomy and physiology	4.48	0.82
Abortion	4.46	1.02
Sexual abstinence	4.44	0.90
Human sexual response	4.41	0.90
Gender identity	4.41	0.92
Diversity (of sexual attitudes and behaviors, discrimination)	4.39	0.92
Sexual orientation	4.35	0.87
Sexuality and the media	4.28	0.90
Gender roles	4.26	0.96
Sexual dysfunction	4.02	1.06
Sexuality and the arts	3.96	0.98
Sexuality and religion	3.96	1.03
Sexual fantasy	3.94	1.02

Participant values were highly consistent with the values inherent in the workshop. The mean rating of the degree to which individual outcomes suggested by SIECUS were important to individuals with ASD on a six point scale was 4.97 (SD = 0.74). Similarly the mean rating for agreement with SIECUS value statements was 4.18 (SD = 0.52) on a five point scale. Examination of the three subscales showed more agreement with core values (M = 4.54, SD = 0.72), followed by sexual expression (M = 4.27, SD = 0.67), and then traditional values (M = 3.70, SD = 0.71) (see Table 9).

Table 9

Means and Standard Deviations for Values Related to Sexuality and Individuals with ASD

	Alpha	Mean	SD
Overall	.89	4.18	0.52
Core values	.93	4.54	0.72
People with ASD have dignity and self-worth.		4.58	0.95
Children with ASD should be loved and cared for.		4.76	0.82
Young people with ASD should view themselves as unique and worthwhile individuals.		4.72	0.83
For individuals with ASD, sexuality is a natural and healthy part of living.		4.52	0.93
People with ASD should be strongly discouraged from sexual activity- RS		4.32	0.87
Sexuality includes physical, ethical, social, spiritual, psychological, and emotional dimensions.		4.48	0.87
Individuals with ASD can express their sexuality in varied ways.		4.30	0.93
Traditional values	.77	3.70	0.71
Parents should be the primary human sexuality educators of their children with ASD.		3.08	0.97
Families should provide children with ASD's first education about human sexuality.		3.58	0.91
Families should share their values about human sexuality with their children with ASD.		4.00	0.83
Abstaining from sexual intercourse is the most effective method of prevention pregnancy and STD/HIV.		4.18	1.02
Sexual Expression	.84	4.27	0.67
Sexual relationships should be reciprocal, based on respect, and should never be coercive or exploitive.		4.80	0.67
People with ASD have the right to make responsible sexual choices.		4.54	0.79
Individuals, families, and society benefit when children with ASD are able to discuss sexuality with their parents and/or trusted adults.		4.44	0.81
Young people with ASD develop their values about sexuality as part of becoming adults.		4.08	0.92
Early involvement in sexual behaviors poses risks.		3.52	1.15
Young people with ASD who are involved in sexual relationships need access to information about healthcare services.		4.56	0.79

Effectiveness of the Training Experience

This section examines outcomes related to the training experience and differences in those outcomes by type of update received. Current instructional practices were examined using only data from participants who completed the pretest and posttest (N = 43). The first set of results examines demographic differences between email and Facebook groups based on the preliminary analysis. The second set of results reflect the repeated measure ANOVAs with type of online support as a between-subjects factor.

Comparison of groups. The preliminary analyses used the pretest data with t-tests and chi square tests to look for differences among comparison groups by demographics. There was one significant difference between the email and Facebook groups (χ^2 = 13.32, 2 degrees of freedom, $\rho < .001$) in terms of teaching status and intention (Table 10). Participants in the email condition were much more likely to not plan to teach sexuality to individuals with ASD whereas participants in the Facebook condition were much more likely to plan on teaching human sexuality in the future. The preliminary analysis also examined inter corrleations of key study variables (at posttest) to see whether or not a positive correlation between instructional behavior, values, or use of online content was observed in this sample (Table 11).

Table 10

Participants in Each Condition by Status and Intention of Teaching Human Sexuality to Individuals with ASD at Pretest

	Email	Facebook	Total
Currently teaching	4	7	11
Planning on teaching	3	12	15
Not planning on teaching	14	3	17
Total	21	22	43

Table 11

Inter Correlations of Key Study Variables at Posttest

	1	2	3	4	5	6	7	8	9	10	11
1. Knowledge		.69***	.65***	.69***	.45**	.12	-.18	-.32*	.31*	.35*	.08
2. Collaborating			.85***	.62***	.47**	-.10	-.10	-.41**	.04	.12	.04
3. Curriculum				.74***	.46**	-.05	-.22	-.24	.06	.08	.26
4. Advocacy					.52***	-.01	-.27	-.21	.12	.24	.35*
5. Readiness						.06	.02	-.30	-.14	.03	.03
6. Core values							.55***	.01	.04	.08	-.19
7. Expression								.36*	-.24	-.25	-.23
8. Traditional									-.06	-.29	.09
9. Read updates										.66***	.15
10. Clicked on											.16
11. Found useful											

Note: *ρ < .05; **ρ < .01; and *** ρ < .001.

Only significant relationships are described. Each of the instructional behaviors (*knowledge seeking*, *collaborating*, *utilizing curriculum*, *advocacy*, and *readiness*) were positively correlated with one another. There were also relationships between the three values subscales. *Core values* was positively correlated with *sexual expression*, but not *traditional values*. *Sexual expression* was correlated with *traditional values*. There were relationships between the items related to online content use. *Reading updates* was correlated with clicking the link to additional content. There were relationships between instructional behavior, values, and online content use. *Knowledge seeking* and *collaborating* were negatively correlated with *traditional values*. *Knowledge seeking* was positively correlated with *reading updates* and clicking the link. *Advocacy* was positively correlated with finding online updates useful.

Program outcomes. We present the pretest and posttest means for all outcome variables in Table 12 below. We conducted paired t-tests to examine differences in the means between the pretests and posttests, and calculated the correlation between pretest and posttests for each outcome measure. The t-tests showed significant increases on *knowledge seeking*, *collaborating*, and *readiness*. There were high correlations between measures at pretest and posttest; the correlations for those measures showing significant change were especially high. The correlations between pretest and posttest indicate that relative ordering of individuals at each measure was quite high.

Table 12

Outcome Means and Standard Deviations at Pretest and Posttest, Correlations, and Paired Samples T-Tests

	Pretest		Posttest			
	M	SD	M	SD	T-test	r^2
Knowledge Seeking	1.64	0.79	2.18	0.70	-5.49***	.66***
Collaborating	2.00	1.04	2.27	0.96	-2.34*	.73***
Utilizing Curriculum	1.82	1.14	2.16	1.33	-1.95	.60***
Advocacy	2.04	0.98	2.16	1.03	-0.80	.53***
Readiness	2.48	0.75	2.94	0.64	-4.86***	.62***
Core Values	4.51	0.85	4.61	0.42	-0.79	.29
Sexual Expression	4.28	0.75	4.27	0.44	0.12	.51***
Traditional Values	3.61	0.70	3.71	0.57	-1.05	.56***

Note: *ρ < .05 and *** ρ < .001.

Next we tested whether being in the email or Facebook group moderated any changes between pretest and posttest. Table 13 summarizes the results of the repeated measures ANOVAs for values and instructional behavior that used time as the within subjects factor and type of online group as the between subjects factor. None of the main effects for type of group were significant, nor were any interactions between time and type of group.

Table 13

Descriptive Statistics and Summary of Program Outcomes from Repeated Measures ANOVA with Online Delivery Method as a Between Subjects Factor

	Within	Between	Interaction	η^2
Core values	0.597	0.27	0.00	
Sexual expression	0.00	0.83	0.46	
Traditional values	1.49	0.66	2.50	
Knowledge seeking	29.98***	2.74	2.91†	.44
Collaborating	5.20*	0.42	0.14	.12
Utilizing curriculum	3.67†	1.31	0.00	
Advocacy	0.74	0.05	0.88	
Readiness	22.72***	0.29	0.67	.37

Note: *ρ < .05 and *** ρ < .001. † Indicates the variable is approaching significance (ρ < .10).

$\boldsymbol{\eta^2 s}$ are reported for the within-subjects main effects, time. There were no significant interactions between time and delivery method.

Attitudes and values. There were no significant changes and attitudes and values from pretest to posttest; nor were there any differences between the two online support groups. Upon inspection, the means for attitudes and values show that participants came to the workshop with attitudes and values already highly affirming of sexuality and ASD.

Instructional behavior. Instructional behavior was measured in four domains: *knowledge seeking*, *utilizing curriculum*, *collaborating*, *advocacy*. *Readiness* was also assessed. There were significant increases in three of these domains from pretest to posttest: *knowledge seeking*, *collaborating*, and *readiness*. *Knowledge seeking* assessed the frequency that participants took classes, attended workshops, did research on the internet, read articles or books, and read online updates. *Collaborating* assessed the frequency that participants planned lessons with colleagues, discussed teaching practices with colleagues, brainstormed how to best support specific individuals, acted as a mentor and received mentoring. Participants also reported feeling more ready to teach human sexuality to individuals with ASD. *Utilizing curriculum* was approaching significance and may have been significant if this study had more power.

Online ongoing support. There were no differences between the email and Facebook groups on any of the outcome variables. *Knowledge seeking* was approaching significance. Although the conditions were randomly assigned, the groups looked very different. Specifically, the majority of the participants in the email condition did not intend to teach human sexuality to individuals with ASD (N = 14) whereas the majority of the individuals in the Facebook condition did (N = 12). However, using intention as a between group factor was not significant on any of the outcomes. Individuals in the email condition did report reading the messages more and found the updates to be more useful (see Table 14).

Table 14

Summary of Email and Facebook Use

	M (SD)	*t*	*df*	P
Read Message		2.41	39.00	<.05
Email	4.05 (0.91)			
Facebook	3.14 (1.42)			
Clicked Link		1.87	38.00	>.05
Email	3.17 (1.20)			
Facebook	2.41 (1.33)			
Found Useful		2.37	38.00	<.05
Email	3.84 (0.69)			
Facebook	3.14 (1.11)			

Chapter Four: Discussion

In this study, we examined the practices of current sexuality educators in terms of the contexts of their instruction, the content and teaching methods they used and the climate for providing sexuality education. We also examined the outcomes of face-to-face training and online, ongoing support in terms of changes in attitudes, values, and the degree to which participants spent more time participating in professional development activities. Finally, we examined how the outcomes were moderated by the method of delivery of ongoing support.

Despite having a limited sample, this study provided several insights into the contexts, content, and climate for teaching human sexuality to individuals with ASD. It would be easy to make assumptions about sexuality education and individuals with ASD such as, that sexuality education primarily happened in schools and utilized professional curriculum, however, this study suggests different contexts. It is clear that those who teach human sexuality come from a variety of professional fields, are teaching both in groups and individually, have students with diverse needs in terms of chronological age and ability level. These educators also have varying resources. The results suggest that educators need training that will function in a variety of discipline settings and must be able to meet the needs of individuals across the spectrum. Specifically, they need support on how to create their own materials, find lesson plans, and adapt lessons to meet students' needs as many did not have access to professional curricula. Many educators come from outside traditional educational settings, suggesting that needs are continuing to go unmet in the schools. Although providing sexuality education within schools is important, other avenues, such as community based service providers, may be able to fill the need for sexuality education. Previously, there was no data on professional development and sexuality education outside the school context. Future research could examine the potential benefits and drawbacks to professional development the tackles human sexuality generally, such as this program did, to workshops that are more specific. The specificity could vary by profession or by population served.

The evidence also supports a comprehensive approach to sexuality. The individuals who were providing education taught across all the content areas. We were surprised that so many participants had taught at least one content area related to human sexuality given that so few indicated at the onset of the survey that they were teaching human sexuality. It may be that perceptions about what human sexuality education entails are restricted. This sentiment was

often confirmed during the workshop when participants would react to the definition of comprehensive sexuality education. This supports the need for general awareness of human sexuality education even among professionals who may not identify themselves as sexuality educators. It was also surprising that 21 participants reported that they did not intend to teach human sexuality education. Their open ended responses suggested that they attended because a) they wanted to provide direct support to individuals on sexuality topics but they don't perceive themselves as educators, b) they wanted to advocate for individuals, and c) someone else thought it was a good idea.

Finally, the climate in regards to providing human sexuality education seemed less hostile than previously imagined. This could be because the participants attending the workshop were coming from less hostile environments, those that were a least conducive to receiving training. Despite support for sexuality education from administrators, parents, and individuals with ASD, actual delivered education was low. The open ended responses about challenges were overwhelmingly focused on the difficulty of teaching sexuality content in ways that are understandable and relevant to individuals with ASD. Only one person mentioned anything having to do with structural issues. This is consistent with previous findings that reported preserved difficulty when supporting individuals with ASD with issues related to sexuality (Raxy, Marks, & Bray-Garretson, 2010). Further research could explore the challenges to teaching sexuality education and how educators have successfully overcome these challenges. Specifically, future research could examine the role of transformative learning in sexuality educations programs for individuals with ASD. The Birds and the Bees modeled a transformative learning experience. The implication was that educators should provide sexuality education to individuals with ASD through a transformative learning experience as well. It may be that educators do not entirely believe that individuals with ASD are capable of such an experience. There is very little empirical evidence of what teaching methods are the most successful for teaching individuals with ASD about human sexuality.

There were several outcomes of the workshop in terms of instructional behavior and readiness, however, there were no significant outcomes in terms of values. Participants had values highly affirming of human sexuality and ASD. This could be a "ceiling effect" in that the means are already so high that there is no room for improvement. A larger study may be able to capture a spectrum of values and determine if the training experience could have an effect on

participant values. Future research could also use a different measure to try to tease apart nuances in values.

This study found that workshop participants reported increased knowledge seeking around sexuality topics, collaborating in regards to sexuality instruction, and readiness to teach human sexuality to individuals with ASD. The workshop and ongoing support were specifically targeting knowledge seeking behavior so it is reasonable that there would be change in this domain. Collaborating was not specifically targeted, however collaborating behaviors were modeled throughout the workshop. In terms of readiness, perceptions of readiness may predict future instruction. Participants may have felt more ready due to their own knowledge seeking efforts. Future research could look more long term to see if these outcomes lead to an increased likelihood of delivering sexuality education over time.

There were no significant outcomes in terms of the interactions with treatment conditions, however, participants did engage differently with the online content depending on the delivery method. Recently much attention has been played to the importance of social media, but in this study, participants receiving email updates were more likely to engage with additional content. This suggests email may be a more effective avenue for delivering educational content however in this study, the modality did not affect any other outcomes. We expected the Facebook updates would be most congruent with a transformative learning experience and therefore more effective but there was no evidence that this was the case. This may have been due to increased email usage. Even if the Facebook updates are more effective, if participants are not seeing them, they have less of a chance of making an impact. Alternatively, it may be that although email may be less consistent with our theoretical model, it is still a good tool for disseminating information. This idea is consistent with data from The Pew Internet and American Life Project which suggested that email at work can make it easier for workers to keep current (Fallows, 2002). This study did not have a comparison group so there was no way to examine the role of ongoing online support in overall program outcomes. There was indirect support that the online support was beneficial; one of the significant outcomes was increased knowledge seeking. This behavior could have been directly facilitated by the online component of the training which provided opportunities to expand the knowledge base.

In this study, we examined the current capacity for teaching individuals with ASD about sexuality, the outcomes of a transformative learning experience, and how differences in online

delivery methods moderated the effects of a face-to-face learning experience. Program developers are increasingly being held to rigorous standards of program effectiveness (De Los Reyes & Kazdin, 2008). This study provided support that a one day transformative face-to-face workshop with ongoing online support can have a positive effect participants' independent knowledge seeking and collaborating behavior. Although there is still much work to be done in this area, this is one of the first studies that has examined how to best train professionals in becoming sexuality educators specifically to individuals with ASD.

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Appendix 1: Survey Instrument

Topic Heading: Introduction

Thank you for participating in this study. I hope this study will help me provide better workshops in the future as well as learn about teaching human sexuality from people who might actuality teach it.

Throughout the survey, Autism Spectrum Disorder is referred to as ASD.

I understand that you may work with a variety of individuals however for this study, I am only interested in the individuals that you work with who have ASD.

What did you think about the workshop? [posttest only]

What is your age (in years)? [posttest only]

What is your gender? [pretest only]

- Male
- Female

Please select the answer that describes you best.

- I am currently teaching human sexuality to individuals with ASD. [If selected then prompted, **How long have you taught human sexuality to individuals with ASD (in years)?]**

- I am planning on teaching human sexuality to individuals with ASD, but have not yet started.

- I do not plan on directly instructing individuals with ASD on human sexuality.

Why are you attending the workshop?

[New Screen]

On an average day, approximately how many hours do you use email? [pretest only]

- 0
- Between 0 and 1 hour
- More than 1 hour but no more than 2 hours
- More than 2 hours but no more than 3 hours
- More than 3 hours

On an average day, approximately how many hours do you use Facebook? [pretest only]

- 0
- Between 0 and 1 hour
- More than 1 hour but no more than 2 hours
- More than 2 hours but no more than 3 hours
- More than 3 hours

[New Screen]

Topic Heading: Profession

Please select the answer that describes your job the best.

- Special Educator
- General Educator
- School Social Worker
- Other School Based Personnel
- Adult Service Provider- Residential
- Adult Service Provider- Vocational
- Other Adult Service Provider
- Social Worker (Not School Based)
- Undergraduate Student: What do you study? _____
- Graduate Student: What do you study? _____
- Other: Please Specify_____

[New screen]

Topic Heading: Experience

In what settings have you taught individuals with ASD human sexuality in the past month (mark all that apply)?

- Individually
- Group
- Resource Classroom
- General Education Classroom
- Classroom in a Community Setting
- Clinical
- Other: Please Specify _____
- I am not currently teaching human sexuality to individuals with ASD

Please estimate how many students with ASD that you have taught human sexuality to in the past month.

- 0
- 1-3
- 4-6
- 7-12
- More than 12

[New Screen]

Please select the grade(s) and/or age group(s) that best represent the students with ASD that you have taught human sexuality to in the past month. Mark all that apply.

- Before 5th Grade
- 5th Grade
- 6th Grade
- 7th Grade
- 8th Grade
- 9th Grade
- 10th Grade
- 11th Grade
- 12th Grade
- Adult High School Students
- Young Adults who are not in High School (18 – 21 year olds)
- Adults (Over 21 years old)
- I have not taught any students at this time.

Please estimate the average amount of time you have spent teaching human sexuality to students with ASD in the past month. Respond with an estimate of the average time you spent with a student (even if they were in a small group).

- 0
- More than 0 but no more than 1 hour
- More than 1 hour but no more than 4 hours
- More than 4 hours but no more than 8 hours
- More than 8 hours

Do you have experience teaching human sexuality that is not specific to individuals with ASD?

- Yes
- No

[New Screen]

Topic Heading: Support for Sexuality Education

Please select the answer that shows how much you agree or disagree with the statement.
[choices: strongly disagree, disagree, neutral, agree, strongly agree, don't know]

My administration/organization is supportive of teaching sexuality education to individuals with ASD.

Individuals with ASD are interested in sexuality education.

Parents seem supportive of their children with ASD receiving sexuality education.

I work with parents when selecting which sexuality topics to teach.

Do you have a sexuality education policy for individuals with ASD at your place of employment?

- Yes
- No
- I don't know
- Comment (if applicable)

[New Screen]

Topic Heading: Students with ASD

Please select the description that best describes the students with ASD that you have taught human sexuality to in the past month. Mark all that apply.

Individuals with ASD typically have difficulty with communication skills (such as the back and forth of conversations, understanding facial expressions, and maintaining relationships). How would you describe the difficulties of your students with ASD that you teach human sexuality to (You may select more than one answer)?

- No or Few Noticeable Deficits in this Area.
- Noticeable Deficits (like difficulty reading body language)
- Marked Deficits (like difficulty with the back and forth of unscripted conversations)
- Severe Deficits (likely has limited verbal ability)
- I am not currently teaching human sexuality to individuals with ASD

How would you describe the support they need in the area of communication (You may select more than one answer)?

- Requires Little or No Support in this Area
- Requires Some Support (such as extra processing time)
- Requires Substantial Support (such as direct instruction on communication skills and prompts)
- Requires Very Substantial Support (such as the use of a communication device)
- I am not currently teaching human sexuality to individuals with ASD

Individuals with ASD typically have difficulty with patterns of behavior (such as stereotyped behavior, excessive adherence to routines, restricted interests, sensory sensitivity/lack of sensitivity). How would you describe the difficulties of your students with ASD that you teach human sexuality (You may select more than one answer)?

Rituals and Repetitive Behaviors…

- Do not interfere or interferes very little
- Interfere in Some Contexts (for example, may only be a problem when anxious)
- Interfere in Many Contexts (for example, may only be interested in engaging in preferred activities)
- Interfere in Almost All Contexts (for example, will become upset, even self-injurious to small changes in routine)
- I am not currently teaching human sexuality to individuals with ASD

How would you describe the support they need in the area of patterns of behavior (You may select more than one answer)?

Rituals and Repetitive Behaviors…

- Require Little or No Support in this Area
- Require Some Support (may need to be prepared for new situations)
- Require Substantial Support (may have a specific plan for introducing new activities)
- Require Very Substantial Support (may need a very controlled environment)
- I am not currently teaching human sexuality to individuals with ASD

Pleas list several strengths you see student with ASD bringing to classes about human sexuality.

[New Screen]

Topic Heading: Training and Preparedness

What have you done to become more effective at teaching human sexuality to individuals with ASD?

What are some challenges to teaching human sexuality to individuals with ASD?

[New Screen]

In the past month, how often have you engaged in each of the activities in regards to human sexuality and individuals with ASD? [choices: never, rarely, sometimes, frequently, very often]

Expanding Knowledge Base...

Taken classes

Attended workshops

Did research on the internet

Read articles or books

Read updates from a Listserv, RSS, or online group

Collaborating…

Planned lessons with colleagues

Discussed teaching practices with colleagues

Brainstormed how to best support specific individuals with colleagues

Acted as a coach or mentor to colleagues

Received coaching or mentoring from other colleagues

Curriculum…

Utilized a professionally developed curriculum

Adapted a curriculum to better meet your students' needs

Developed instructional materials (i.e. visual supports)

Advocacy….

Advocated with administrators/management

Advocated with parents

Participated on a committee or task force

Supported self-advocates

[New Screen]

Please select the answer that shows how much you agree or disagree with the statement.
[choices: strongly disagree, disagree, neutral, agree, strongly agree]

I feel prepared to teach human sexuality to individuals with ASD.

The idea of teaching human sexuality to individuals with ASD seems overwhelming.

I feel comfortable with teaching human sexuality to individuals with ASD.

There is a lot I still need to learn about teaching human sexuality to individuals with ASD.

I feel confident in my ability to teach human sexuality to individuals with ASD

[New screen]

Topic Heading: Teaching practices

There are many different methods that can be used when teaching human sexuality to individuals with ASD. Please select all methods that you have used in the past month.

- I am not currently teaching human sexuality to individuals with ASD.
- Lecture
- Discussion
- Brainstorming
- Panel Discussion
- Video
- Small groups
- Role Playing
- Readings
- Report back sessions
- Worksheets
- Surveys
- Interactive Lessons
- Demonstrations
- Visual Supports
- Other (please specify)

[New screen]

Topic Heading: Sexuality Education Content

For the following questions you will be provided with a comprehensive list of sexuality topics.

How important to you is each of the human sexuality content areas listed below when teaching individuals with ASD? [choices: extremely unimportant, very unimportant, unimportant, important, very important, extremely important]

Human development

Reproductive and sexual anatomy and physiology
Puberty
Reproduction
Body image
Sexual orientation

Gender identity

Relationships
- Families
- Friendship
- Love
- Romantic relationships and dating
- Marriage and lifetime commitments
- Raising children

Personal skills
- Understanding own values
- Decision making
- Communication
- Assertiveness
- Negotiation
- Help seeking

Sexual behavior
- Sexuality throughout life
- Masturbation
- Shared sexual behavior (sexual behavior with another person)
- Sexual abstinence
- Human sexual response
- Sexual fantasy
- Sexual dysfunction

Sexual health
- Reproductive health
- Contraception
- Pregnancy and prenatal care
- Abortion
- Sexuality transmitted diseases
- HIV and AIDS
- Sexual abuse, assault, violence and harassment

Society and culture
- Sexuality and society
- Gender roles
- Sexuality and the law
- Sexuality and religion
- Diversity (of sexual attitudes and behaviors, discrimination)
- Sexuality and the media
- Sexuality and the arts

[New screen]

Below you will see a list of the same content areas. What topics (if any have you taught to individuals with ASD in the past (please check all that apply)? What topics (if any) would you not be allowed to teach (pleas select all that apply)? If neither of these categories apply

to you, pleas select N/A. [each of the content areas is repeated with the choices have taught, not allowed to teach, and N/A]

[New Screen]

Many times, you may be unable to teach all the topics you think are important. If you were planning a six week class and wanted to choose a different topic each week, which six would you choose? [six drop down menus with each of the content areas listed in each menu]

Please explain why you chose these 6 topics.

[New Screen]

Topic heading: Need

Why do you think individuals with ASD need education about human sexuality?

[New screen]

Here are some answers that others have given about why education about human sexuality is important for individuals with ASD. How important do you think they are? (If you feel they don't apply to individuals with ASD at all, choose N/A) [choices: extremely unimportant, very unimportant, unimportant, important, very important, extremely important, N/A]

Individuals with ASD need sexuality education because they…

…are at increased risk for sexual exploitation.

…have a right to this information so there is a responsibility to offer it.

…are at increased risk for sexually inappropriate behavior.

…need to be formally taught skills to enhance and facilitate intimate relationships.

[New screen]

Topic Heading: Sexuality and Individuals with ASD

Please select the answer that shows how much you agree or disagree with the statement in regards to individuals with ASD. [choices: strongly disagree, disagree, neutral, agree, strongly agree]

People with ASD have dignity and self-worth.
Children with ASD should be loved and cared for.
Young people with ASD should view themselves as unique and worthwhile individuals.
For individuals with ASD, sexuality is a natural and healthy part of living.

People with ASD should be strongly discouraged from sexual activity
Sexuality includes physical, ethical, social, spiritual, psychological, and emotional dimensions.
Individuals with ASD can express their sexuality in varied ways.
Parents should be the primary human sexuality educators of their children with ASD.
Children with ASD should primarily learn about human sexuality at school.
Families should provide children with ASD's first education about human sexuality.
Families should share their values about human sexuality with their children with ASD.
People with ASD should respect and accept the diversity of values and beliefs about sexuality that exist in a community.
Sexual relationships should be reciprocal, based on respect, and should never be coercive or exploitive.
People with ASD have the right to make responsible sexual choices.
Individuals, families, and society benefit when children with ASD are able to discuss sexuality with their parents and/or trusted adults.
Young people with ASD develop their values about sexuality as part of becoming adults.
For young people with ASD, exploring sexuality is not part of the natural maturity process.
Early involvement in sexual behaviors poses risks.
Abstaining from sexual intercourse is the most effective method of prevention pregnancy and STD/HIV.
Young people with ASD who are involved in sexual relationships need access to information about healthcare services.
If nobody talks to individuals with ASD about sex they probably won't think about it.

[New screen]

How important to you is each of following items for individuals with ASD as they are able?
[choices: extremely unimportant, very unimportant, unimportant, important, very important, extremely important]

Respect one's one body.
Seek further information about reproduction as needed.
Affirm that human development includes sexual development, which may or may not include reproduction or sexual experience.
Interact with all genders in respectful and appropriate ways.
Refrain from engaging in any sexual activity.
Affirm one's own sexual orientation and respect the sexual orientations of others.
Affirm one's own gender identities and respect the gender identities of others.
Express love and intimacy in appropriate ways.
Develop and maintain meaningful relationships.
Avoid exploitative or manipulative relationships.
Make informed choices about family options and relationships.
Exhibit skills that enhance personal relationships.
Identify and live according to one's own values.
Take responsibility for one's own behavior.
Practice effective decision-making.
Develop critical-thinking skills.

Communicate effectively with family, peers, and romantic partners.
Enjoy and express one's sexuality throughout life.
Express one's sexuality in ways that are congruent with one's values.
Enjoy sexual feelings without necessarily acting on them.
Discriminate between life-enhancing sexual behaviors and those that are harmful to self and/or others.
Express one's sexuality while respecting the rights of others.
Avoid relationships that may become sexual.
Seek new information to enhance one's sexuality.
Engage in sexual relationships that are consensual, non-exploitative, honest, pleasurable, and protected.
Practice health-promoting behaviors such as regular check-ups, breast and testicular self-exam, and early identification of potential problems.
Use contraception effectively to avoid unintended pregnancy.
Avoid contracting or transmitting a sexually transmitted disease, including HIV.
Act consistently with one's own values when dealing with an unintended pregnancy.
Seek early prenatal care.
Help prevent sexual abuse.
Demonstrate respect for people with different sexual values.
Exercise democratic responsibility to influence legislation dealing with sexual issues.
Assess the impact of family, culture, media, and societal messages on one's thoughts feelings, values, and behaviors related to sexuality.
Refrain from expressing sexual thoughts or ideas.
Critically examine the world around them for biases based on gender, sexual orientation, culture, ethnicity, and race.
Promote the rights of all people to accurate sexuality information.
Avoid behaviors that exhibit prejudice and bigotry.
Reject stereotypes about the sexuality of different populations.
Educate others about sexuality.

[The remaining questions were asked at posttest only]

[New screen]

Topic heading: Updates

For the next few question, I will be asking you about the updates you received after the workshop.

During the past month, an email[facebook] message was sent to you with information about teaching human sexuality. How often did you read these messages?

- o Never
- o Only Once or twice
- o Sometimes

- Most of the time
- Always

You said that you never or rarely read the messages. Could you tell me why you didn't read the messages? [only if they answered never or only once or twice]

- I didn't get or don't recall getting the emails
- I didn't have time.
- I intended to read them later, but forgot.
- It was inconvenient to read them on the device I was using.
- I decided I wasn't interested anymore.
- The information was not what I expected.
- Other (please specify)

[New screen]

How often did you click on the link in the email to view additional information online?

- Never
- Sometimes
- About half the time
- Most of the time
- Always

In general, how useful was were the email updates?

- Very useful
- Useful
- Somewhat useful
- Not useful
- Very unuseful

Is there anything that you would like me to add to the website? Anything you would find particularly helpful?

Please feel free to include any other comments.