
Expansion Activities

The Main Event

This issue our topic is **public vs. private behavior**. Melissa Trautman is our guest author; she has written The Main Event.

**Good ideas for teaching students to better understand these social concepts include:**

- Have the students give examples of behaviors that are appropriate in public and behaviors that are appropriate in private. Write them on a chart and display the chart in your classroom.

- Talk about the word “appropriate.” Do you think the use of the word is a judgment call? What is appropriate for one place might be totally inappropriate for another place. Whether or not something is appropriate also depends on who is doing the judging.

- Videotape students in a public setting at school, such as the lunchroom, recess, classroom, etc. Watch the video and list any behaviors that you see that could be judged as inappropriate for a public setting.

- Create a skit of inappropriate and appropriate behaviors in a public setting. Choose a public setting and have students write and act out the skit. Identify which behaviors were inappropriate and appropriate.

- Role-play as different characters: Elderly person, truck driver, teenage boy, teenage girl, teacher, parent, clergy, etc. Look at the video skits again and judge them as appropriate or inappropriate again but from the particular character’s perspective.

- Discuss who makes and enforces laws. If you are in trouble with the law, whose perspective do you need to worry about?

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I am Kari Dunn Buron, a teacher from Minnesota, and I just love this magazine!
I Second That Emotion!

This issue’s column talks about the varying degrees of being bothered by something. Students on the autism spectrum or with related social problems might over-react to certain situations. They might feel shocked or outraged by something that another person might only feel bothered by. Have your students use the scale to talk about this issue and fill in their own challenges. Point out to students that it is a good idea to stop and think about these issues when they are calm so that they can increase the chances they will be able to use logic in the moment.

Coming to Our Senses:

In this issue, an OTR discusses a hard fact about the effect of listening to loud music with headphones. You could just engage in an informational discussion about this with your students, but you could probably get a good debate going. Such a discussion could also lead to a science project for one of your students.

If you know a rock musician (preferably old enough to have experienced a lot of loud music but young enough to still be “cool”), consider asking him or her to visit your group and talk about the realities of hearing loss in the music industry. Discuss other professionals who would be at risk of hearing damage due to their work environments.

Gets-It Knows!:

Here are some ideas for further discussion:

- Skipping school is a habit because the more school you miss the more behind you feel, and the more behind you feel the more nervous you are about coming back to school. In the end, it becomes easier to just skip.
- What do your students think Roger means by the words “slippery slope”?
- What do your students think about Roger’s solution? Do they think it might work?

Remember to send letters to Roger at rogergetsit@aapcpublishing.net.

Puzzle Time:

- Use the puzzles as a supplemental activity to reinforce the topic lesson. The answers are posted on this website. You can expand on the use of the puzzles by listing the key words on the board and asking your group what they learned about the words.

Tip to Combat Bullying:

We have added this “tip” to the magazine as a kind of “safety vest” for students who might be targets of bullying. The tips are not meant to take the place of organized and schoolwide anti-bullying programs but to offer one tip at a time about simple defensive strategies for day-to-day living at school or in the community. They might open the door to discussion about problems happening in your school.
Animal Facts:
Throughout the magazine, fun facts involving animal behavior are interspersed. We hope this will increase the entertainment quotient of the overall magazine experience.

- Invite your students to submit their own trivia ideas to the magazine. If they excite us, we will print them in one of our future issues.

Something to Talk About:
Ideas to discuss:

- Talk about saying “I’m sorry” to someone. This is an example of how it can help to say “I’m sorry,” even if the person saying “sorry” doesn’t always realize it.
- Ask your students if they have ever been embarrassed like that in school. Did the horrible feelings go away after a while?

The Cartoon:
The abstract nature of the cartoon is purposeful. Social rules and social faux pas are subtle, and this activity gives students an opportunity to analyze the social information, point by point. It is expected that the teacher or group leader will support this using the following prompt questions:

- What is funny about this cartoon?
- Look at Andrea’s face. How do you think she is feeling?
- Do you think the little sister was embarrassing Andrea on purpose or was she being “socially clueless”? 

Contributors to This Issue

Melissa L. Trautman, Ms. Ed., is a special education teacher with several years of experience working with children with autism spectrum disorders. She is currently a regional coordinator for the Nebraska Autism Spectrum Disorders Network. She is co-author of *The Hidden Curriculum: Practical Solutions for Understanding Unstated Rules in Social Situations*, *My New School: A Workbook to Help Students Transition to a New School* and the 2011 One-a-Day Hidden Curriculum Calendar for Children.

Jennifer Veenendall is a school-based occupational therapist in West St. Paul, Minnesota. Working with students with a wide range of abilities, she is especially passionate about creating learning environments that meet students’ sensory processing needs. Jennifer received her occupational therapy degree from the University of Wisconsin-Madison and her master’s degree in human development from St. Mary’s University of Minnesota. She lives in Hudson, Wisconsin, with her husband, Scott, and their two children, Anna and Benjamin. When she is not working, Jennifer enjoys spending time with her family at their cabin as well as drawing and painting. Jennifer is the author of *Arnie and His School Tools, Sensory Solutions That Build Success* and *Why Does Izzy Cover Her Ears? Dealing with Sensory Overload.*

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Public vs. Private Behavior

General Information for All School Personnel

The social cognitive disorder involved in autism spectrum disorders includes disruption of a typical learning process. A typical child is very aware of others’ reactions to his or her behavior. For example, a young child might pick her nose or touch herself in a private place but quickly learns (from the responses of others) that it is not OK to do this in public. Without being specifically told, a typical child figures out that the hidden social rule is more about not letting another person see her pick her nose. She understands that if she wants to do this, she should go to the bathroom and close the door.

What is OK to do in public and what is best done behind closed doors is part of a bigger problem related to social boundaries. Students on the autism spectrum or with similar disorders seem to lack the social awareness needed to understand that a behavior is socially inappropriate or unacceptable in some way. The student is likely to miss the point that someone else has been offended or shocked.

A good idea is to establish a system for letting your student know when a particular behavior has offended or upset another person. Because this lack of understanding is not intentional, it is best to keep the teaching honest but non-judgmental. Avoid using terms like “inappropriate” or “rude” since these words are not helpful in defining what the student did wrong, nor help to teach the student what to do differently. One idea for a “system” is to use a scale. The following scale could be used to “rate” particular social behaviors:

5 = This is way out of line. Other people will be very upset if you do this. An example is using threatening words or touching yourself in private places.

4 = This is upsetting to many people. Some people might not be upset, but most people will be upset enough to move away from you or be afraid of you. An example is talking about overly sexual or violent things.

3 = This is just odd. People might think you should know better because the behavior makes other people think strange thoughts about you; they usually make faces when they are thinking the strange thoughts. An example is picking your nose or scratching private parts in front of others.

2 = This is immature behavior. When children are young, they laugh a lot about passing gas or pooping. A 5-year-old might tell a lot of jokes about farting or seeing someone naked. While this can be annoying, it is fairly typical for a 5-year-old since he is just learning how to socialize with a lot of other people his age. But if you continue to talk like this when you are older, people will probably say you are being “immature,” and you might find that nobody thinks the topics are funny any more.

1 = This is just fine. People are not offended or upset by this behavior. This might be called “public behavior” because you can do it in front of others and most people will be fine with it. An example might be asking to go to the bathroom or accidentally passing gas and excusing yourself.

Public vs. Private Behavior – Word Search Answers

Word Bank:  BEDROOM, DOOR, IMPORTANT, LOCATION, MANNERS, POLICE, PRIVATE, PUBLIC, QUIET, RESPECT, RESTROOM, RULES, STOP, TOUCHING, YOURSELF
Public vs. Private Behavior – Crossword Answers

ACROSS
1) a place where you are alone
4) the place where someone sleeps
6) an action that is generally OK with other people
8) two words that tell someone you appreciate something they did

DOWN
2) a place where there are more people than just your family
3) a word to mean “next to”
5) a word used to describe an action that is proper
7) the general area
9) two words: something you might say if you accidentally bump into someone else
10) shopping place with many different stores

Public vs. Private Behavior – Quiz

Name: ____________________________________

1) The following things are true of a private place.
   A) Other people cannot see you.
   B) Other people cannot hear you.
   C) Other people probably do not know what you are doing.
   D) None of the above.
   E) All of the above.

2) A “rule” that can help you with social success might include:
   A) Always insisting on your own way.
   B) Saying “please” and “thank you” a lot.
   C) Picking your nose in public.
   D) Calling someone rude names.

3) A private stall in a public bathroom could be considered a private place.
   A) True
   B) False

4) The safest private place is your own bedroom with the door closed.
   A) True
   B) False

5) Touching yourself in a private way is an example of acceptable public behavior.
   A) True
   B) False

6) Public places can be indoors or outdoors.
   A) True
   B) False
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Teachers’ perspectives of the sexuality of children with autism spectrum disorders

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ABSTRACT

Individuals with autism spectrum disorders (ASD) experience sexuality issues, but there are very few studies looking at sexuality and autism. The present study aims to examine teachers’ perceptions of sexual behaviors of 56 children with low functioning autism (LFA) and 20 children with high functioning autism (HFA) or Asperger Syndrome (AS). Teachers perceived children with LFA as exhibiting less socially acceptable behaviors, as possessing lessened awareness of privacy related rules, and as having more limited knowledge of typical sexual responses and behaviors in comparison to children with HFA or AS. However, teachers expressed more concerns for children with HFA or AS. These findings should be taken into consideration when designing intervention programs targeting sexuality of individuals with ASD.

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Sexuality and autism is a topic that has not been studied widely, as pointed out by Gabriels and van Bourgondien (2007) and Realmuto and Ruble (1999), but this does not mean that individuals with autism do not experience sexuality issues. The limited studies that have been conducted so far with interviews of individuals with autism or reports from their caregivers provide evidence that the former do show awareness of and interest in sexuality issues, which is manifested often through sexual behaviors (Harocopos & Pedersen, 1992; Konstantareas & Lusky, 1997; Ousley & Mesibov, 1991; Van Bourgondien, Reichle, & Palmer, 1997). So, although individuals with developmental delay and autism spectrum disorders (ASD) have often been regarded as sexually immature (e.g., Ludlow, 1991) or asexual (e.g., Zigler & Hodapp, 1986), some individuals with high functioning autism or Asperger Syndrome have expressed interest in getting married or having intimate and sexual relationships (Newport & Newport, 2002).

Individuals with ASD enter the physical process of puberty roughly at the same time as their typically developing peers (Murphy & Elias, 2006), although due to the core deficits of ASD they continue to experience problems in cognitive and psychosocial functions. Gillberg and Coleman (1992) pointed out that the sexual drive is not usually accompanied by social maturity and this might lead to embarrassing situations. For example, Ruble and Darlymple (1993) reported that parents of children with autism described them as engaging in inappropriate sexual behaviors.

The lack of social understanding displayed by individuals with autism (Gillberg, 1984) can interfere with their ability to use their social judgment to assess whether they should perform certain behaviors in public or private places, how and why they should practice personal hygiene, and how to protect themselves from social exploitation (Gabriels & van Bourgondien, 2007). The use of echolalia (Tager-Flusberg, Paul, & Lord, 2005) can result in repetition of sexuality terms that individuals with autism have heard previously in inappropriate social contexts, resulting in embarrassment for the caregivers or misunderstanding by others (Gabriels & van Bourgondien, 2007). The tendency of individuals with autism to engage in repetitive, restricted, and
stereotyped behaviors (APA, 1994) can aggravate their tendency to perform self-stimulating activities, such as masturbation, to an extent that can become problematic for any social exchanges. De Myer, 1979, Ruble and Darlymple (1993), and van Son-Schoones and Bilsen (1995) reported that parents of children with autism express their pressing worries about the sexuality of their children. However, researchers and professionals often hear from parents of individuals with autism that they have enough problems to deal with and sexuality should not be added to them (Henault, 2005).

There are many sexuality issues, such as masturbation or menstruation, which can pose as serious health and safety risks if they are not acknowledged and addressed. The complexities involved in sexuality, coupled with the sexuality behaviors and interests of individuals with autism, as well as the deficits that they experience in understanding social expectations can render them sexual victims or victimizers. Therefore, it is imperative to educate both caregivers and professionals working with individuals with autism how to better understand and address their sexual needs (Gabriels & van Bourgondien, 2007); ignoring them is not the answer.

Hellemans, Colson, Verbraeken, Vermeiren, and Deboutte (2007) recognize that the sexual development and behavior of individuals with ASD are largely neglected by research and state that many clinicians are asked to give advice to individuals with HFA or AS who are concerned about their sexuality. Gabriels and van Bourgondien (2007, p. 59) stress that "it is imperative that professionals working with school-age children and adolescents with autism to be alert to sexuality issues in this population so preparations to address and teach appropriate social boundaries and personal self-care can be made long before the child with autism enters puberty". It should also be stressed that the move towards the inclusion of individuals with ASD in educational and community settings has rendered the need to explore their sexuality even more pressing (Koller, 2000).

In order to design effective intervention programs for individuals with ASD, it is imperative to identify the behaviors that are problematic and do not conform to typical adolescent behaviors (Stokes & Kaur, 2005). However, since individuals with ASD may lack insight into their problematic behaviors (Attwood, 1998; Volkmar, 1987), most researchers have asked parents and caregivers about the sexual behavior of their children with ASD (e.g., Ruble & Darlymple, 1993; Stokes, Newton, & Kaur, 2007), while sexual knowledge was investigated in other studies (e.g., Edmonson, McCombs, & Wish, 1979; Penny & Chataway, 1982). Van Bourgondien et al. (1997) have argued that there is limited information on both the nature and the frequency of sexual behaviors of individuals with autism and that the level of autism, the level of mental retardation and the presence of verbal language are highly related to the nature of sexual behaviors. Most of these studies have explored the sexuality of high functioning adolescents and young adults (e.g., Hellemans et al., 2007; Ruble & Darlymple, 1993; Stokes et al., 2007), despite the fact that 70% of individuals with ASD have an IQ of less than 70 (Ghazziudin, Ghazziudin, & Groden, 2002). In this context, the aim of the present study was to examine the sexual behaviors of children with ASD as reported by their teachers and to explore whether they are differentiated according to their level of autism.

1. Methods

1.1. Participants

The sample consisted of teachers of 76 children diagnosed with ASD. All the teachers were teaching in special schools or inclusion classes in mainland Northern Greece and were working with the child with ASD that they were asked to comment on for at least 8 months. There were 39 women and 17 men whose age ranged from 26 to 52 years old (mean age = 38 years and 8 months) and their teaching experience varied from 1 to 17 years (mean teaching experience = 9 years and 10 months). They all had a teaching degree and some kind of specialization in special needs education in the form of training or postgraduate degree.

The 54 boys and 22 girls who were diagnosed with ASD were aged between 7 and 14 years old (mean age = 10 years and 7 months). There were 56 (73.7%) children with low functioning autism (LFA) with mean age of diagnosis 3 years and 7 months and 20 (26.3%) children with high functioning autism (HFA) or Asperger Syndrome (AS) with mean age of diagnosis 4 years and 5 months. There were 38 boys and 18 girls in the LFA group with mean age of 10 years and 4 months and 16 boys and 4 girls in the HFA or AS group with mean age of 10 years and 10 months. There was co morbidity in 23 out of the 76 participants (e.g., mental retardation, attention deficit disorder/hyperactivity, learning disabilities). The children were diagnosed with ASD from the Local Educational Authorities from a multidisciplinary team comprising of a psychologist, a psychiatrist, a speech therapist, and a social worker. The diagnosis of ASD was consistent with the criteria set by the DSM-IV (APA, 2000) – the participants met the criteria for autism and had no history of cognitive or language delay. The children with LFA had an IQ below 70, while the children in the HFA or AS group had normal IQ. Initial analyses showed that age and gender of the child did not have an effect on teachers' perceptions about their sexuality, so it was excluded from further analyses.

1.2. Measures

The questionnaire that was used for this study was developed by Stokes and Kaur (2005) and is called Sexual Behavior Scale (SBS). It was based on findings from studies carried out by Harelcos and Pedersen (1992) and Ruble and Darlymple (1993) and it was designed to measure parental perceptions about the sexual behavior of their children with ASD; in the present study, the questionnaire was modified to measure teachers’ perceptions. Therefore, the words “the child with ASD” replaced the words “your child” of the original version of the SBS. The questionnaire measures five different aspects of sexual behavior: (a) social behavior: it includes seven items related to social companions and activities that are rated on a scale from
1 to 4 (1 = rarely, 2 = sometimes, 3 = often, and 4 = always); the minimum score is 7 and the maximum score is 28 – with a higher score indicating more socially acceptable behaviors. The Cronbach α of the subscale for this study is .79 (slightly lower than the .82 reported by Stokes & Kaur 2005); (b) privacy: it includes 17 items that relate to privacy seeking behavior, awareness of privacy related rules, and methods of acquiring these rules and have dichotomous yes/no ratings (1 = no, 2 = yes); the rating was slightly different in the first five items of the original questionnaire; the minimum score is 17 and the maximum score is 34 – with a higher score indicating more awareness and practice of privacy sexual rules. The Cronbach α of the subscale for this study is .90 (much higher than the .60 reported by Stokes & Kaur, 2005); (c) sex education: it includes 17 items that measure the child’s understanding of sexuality issues, such as sexual hygiene and acceptable behavior towards a potential romantic partner that have dichotomous yes/no ratings (1 = no, 2 = yes); the minimum score is 17 and the maximum score is 34 – with a higher score indicating acquisition of more sex education. The Cronbach α of the subscale for this study is .83 (higher than the .73 reported by Stokes & Kaur, 2005); (d) sexual behavior: it includes 10 items that relate to appropriateness of previous sexual behaviors and knowledge of typical sexual responses and that have dichotomous yes/no ratings (1 = no, 2 = yes); the minimum score is 10 and the maximum score is 20 – with a higher score indicating more socially appropriate behaviors. The Cronbach α of the subscale for this study is .66 (higher than the .55 reported by Stokes & Kaur, 2005); and (e) teachers’ concerns: it includes four items that relate to misinterpretations and misunderstandings about the child’s behaviors by others, misconceptions about sex, and finding a life partner. This subscale was called parental concerns in the original questionnaire and is rated on a scale from 1 to 4 (1 = rarely, 2 = often, 3 = slightly, and 4 = not at all); the minimum score is 4 and the maximum score is 16 – with a higher score indicating less teacher’s concerns. The Cronbach α of the subscale for this study is .82 (slightly lower than the .88 reported by Stokes & Kaur, 2005). The questionnaire collected also basic demographic variables, such as the age and the gender of the child. Teachers were also asked questions about the time and the exact nature of the diagnosis, the presence of comorbidity and whether they felt confident that they could provide sexual education to children with ASD.

1.3. Procedure

Teachers of children with ASD were approached at special schools and inclusion classes and informed about the purpose of the study. Then they were asked whether they would be interested to participate and if they replied positively, then they were given the questionnaire to complete (completion lasted approximately 20 min). Some teachers filled more than one questionnaire according to the number of children with ASD that they had in their classroom.

2. Results

A Mutliple Analysis of Variance (MANOVA) was used to examine whether the two groups of children with ASD differed on the five dependent variables of social behavior, privacy, sex education, sexual behaviors and teachers’ concerns (which are functions of a higher order construct – Stokes & Kaur, 2005). MANOVA showed that the level of functioning of children with ASD had an effect on (a) perceived social behavior ($F_{1,74} = 28.81, p = .000, \eta^2 = .36$) – children with HFA or AS exhibited more socially acceptable behaviors than children with LFA according to their teachers; (b) privacy ($F_{1,74} = 33.08, p = .000, \eta^2 = .39$) – children with LFA exhibited less privacy seeking behavior and less awareness of privacy related rules than children with HFA or AS according to their teachers; (c) sex education ($F_{1,74} = 35.91, p = .000, \eta^2 = .41$) – teachers reported that children with HFA or AS have higher understanding of sexuality issues and receive more sex education than children with LFA; (d) sexual behavior ($F_{1,74} = 6.91, p = .008, \eta^2 = .12$) – teachers perceived children with LFA as having a history of less appropriate sexual behaviors and decreased knowledge of typical sexual responses in relation to children with HFA or AS; and (e) teachers’ concerns ($F_{1,74} = 11.04, p = .002, \eta^2 = .18$) – teachers expressed more concerns for children with HFA or AS than for children with LFA. Means and standard deviations are presented in Table 1.

Finally, when teachers were asked whether they felt confident that they could provide sexual education to children with ASD, only 7 teachers (12.5%) said that they did. There were no differences according to the level of functioning of children with ASD ($\chi^2 = .26, df = 1, p = .331$) or according to their gender ($\chi^2 = .21, df = 1, p = .212$).

### Table 1

Means and standard deviations of the sexual behavior of children LFA and HFA or AS according to their teachers.

<table>
<thead>
<tr>
<th></th>
<th>LFA group (M, SD)</th>
<th>HFA or AS group (M, SD)</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social behavior</td>
<td>10.78 (3.03)</td>
<td>15 (2.39)</td>
<td>28.81*</td>
</tr>
<tr>
<td>Privacy</td>
<td>21.38 (2.93)</td>
<td>27.25 (4.02)</td>
<td>33.09*</td>
</tr>
<tr>
<td>Sex education</td>
<td>27.71 (3.10)</td>
<td>31.87 (1.96)</td>
<td>35.91*</td>
</tr>
<tr>
<td>Sexual behavior</td>
<td>18.75 (1.54)</td>
<td>19.66 (4.8)</td>
<td>6.91*</td>
</tr>
<tr>
<td>Teachers’ concerns</td>
<td>6.33 (.91)</td>
<td>5.55 (.88)</td>
<td>11.04**</td>
</tr>
</tbody>
</table>

**Note:** lower scores indicate more inappropriate behaviors.

* $p < .001$.

** $p < .05$. 

3. Discussion

Teachers reported that children with LFA exhibit more problematic behaviors than children with HFA or AS. However, they have expressed more concerns about the latter, since individuals with autism and average intelligence are more likely to be part of social interactions within the family or the community that provide opportunities for sexual experiences (Shea & Mesibov, 2005). Some of these teachers were teaching in inclusion classes and so they were charged with monitoring the sexual behaviors of the children with HFA or AS they were teaching.

The findings of the present study have been consistent with the finding of van Bourgondien et al. (1997) that the level of autism has an impact on sexual behaviors. More specifically, children with LFA were considered by their teachers as exhibiting less socially acceptable behaviors, as possessing lessened awareness of privacy related rules, and as having more limited knowledge of typical sexual responses and behaviors in comparison to children with HFA or AS. Howlin (1997) reports that the problems of this specific population pertain mainly to social rather than physical aspects of sexuality. For example, they may be misunderstood when they touch someone to show that they are thankful, since the lack of social understanding can interfere with social judgement (Gillberg, 1984). The inability to make judgements about the appropriateness of a situation may pose a serious threat for exploitation – mainly for females – and this is why sexuality education should start by teaching the individual with ASD how to perform certain self-care activities and how to be safe (Shea & Gordon, 1991).

Children with LFA may view masturbation as a stereotypic behavior and thus engage in it more often (Ruble & Darlymple, 1993), while it has also been documented that boys with autism who have mental retardation may expose themselves, masturbate in public, and touch other people’s genital areas (Gillberg & Coleman, 1992). These behaviors have caused repeatedly embarrassment to parents and caregivers (Gabriels & van Bourgondien, 2007) and surely pose a challenge for teachers as well, who might not know how to react when confronted with such a behavior. This could also mean that teachers may pay more attention to these sexual behaviors that cause embarrassment, even if they do not occur very often, attributing thus more inappropriate behaviors to children with LFA than children with HFA or AS who have more social awareness.

It should also be stressed that since children with LFA interact with peers mainly, if not exclusively, at school, teachers may have to address sexual behaviors that are not exhibited in other settings due to the lack of social partners or sexual interest. Therefore, some of the sexual behaviors that are prominent at school and reported by teachers may not be identified by the parents or the caregivers, rendering thus the former important sources of information about the sexual behavior of children with LFA. Moreover, other studies have revealed that some sexual behaviors of individuals with LFA have been researched adult populations residing in institutions (e.g., van Bourgondien et al., 1997) and not children who live with their families and are the focus of inclusive practices, as was the case in the present study.

Children with HFA or AS were perceived by their teachers as having achieved increased social awareness through increased verbal skills that might account for the lower frequency of sexual behaviors in the presence of others. However, even this improvement in their social skills acquisition cannot keep up with the constantly growing demands as they become older and this should not be overlooked by teachers who need to provide constant training. The inability to acquire and practice the subtle rules of social interaction can enhance sexuality problems and any training at this age should target empathy, rigidity, and social distance (Mesibov, 1985). Moreover, Ray, Marks, and Bray-Garretson (2004) suggested that individuals with HFA or AS may engage in sexual behavior because it feels good and therefore they do not really care what other people think. This lack of tendency to follow social norms may prompt the individual with HFA or AS to exhibit some sexual behaviors that teachers may ignore until they become overt.

Given that children with ASD are included in mainstream settings (Koller, 2000), it is important to ensure that teachers are able to recognize and meet their sexual needs (Gabriels & van Bourgondien, 2007). This study showed that children with HFA or AS received more sex education than their peers with LFA, probably because of the increased verbal skills that this group possesses (Ghazziudin et al., 2002) and the increased chances that they will interact with others in social settings (Shea & Mesibov, 2005). However, special emphasis should be given to training all individuals with ASD to understand and respond to subtle social cues and interactions. The question is not if individuals with ASD will receive sexuality education, but how it will be offered. Koller (2000) supported that appropriate education in sexuality is essential for the development of a positive self-esteem and that sex education should be a priority for individuals with disabilities. However, the vast majority of teachers in the present study reported that they did not feel confident to provide sex education to their students with ASD because they also lacked this training. Although it could be argued that this is a shortcoming of the particular educational system, the same was observed in other countries. For example, staff members in the Ruble and Darlymple (1993) study have not received any training in educating adults with autism on sexuality issues. It should be acknowledged, however, that due to religious or cultural beliefs some teachers may not feel comfortable addressing sexuality issues, in which cases alternative sources of training should be considered.

There are certain limitations to the present study: (a) it explored sexuality issues of children and adolescents with ASD living with their families. However, the results might be different if the focus was on individuals living in community settings, as pointed out by Harocopos and Pedersen (1992) and van Bourgondien et al. (1997), who identified a high frequency of sexual behaviors among this population that must be acknowledged and addressed by the staff, which should receive special training on this topic; (b) children with ASD may exhibit different sexual behaviors at home and in other settings, where the rules may be less explicit, so it may be difficult to generalise these findings across people and settings; (c) the majority of children with ASD who were the focus of this study were receiving also training from other mental health
professionals (e.g., psychologists) outside the school setting and their contribution to sex education could not be measured; (d) the level of mental retardation and the presence of verbal language that affect the nature of sexual behaviors (van Bourgondien et al., 1997) were not assessed in this study; (e) reports of sexual behaviors relied solely on teachers – the perspectives of parents or caregivers and the children with ASD themselves could have enriched the data; and (f) there may be some aspects of sexuality that the specific questionnaire does not measure (Stokes & Kaur, 2005).

It is important to note that teachers reported similar sexual behaviors to those mentioned by parents and caregivers (e.g., Gabriels & van Bourgondien, 2007) and adolescents or young adults with autism (Hellemans et al., 2007). Moreover, the present study confirms the assertion that individuals with ASD do experience sexuality issues (Newport & Newport, 2002).

The differences that teachers have detected in the sexual behaviors of children with LFA and HFA or AS indicate that intervention programs should acknowledge and address them in order to be successful (Gabriels & van Bourgondien, 2007; Koller, 2000). The greatest challenge of all is to find a balance between fearing the sexuality of individuals with autism and assuring that they are allowed to exercise their sexual rights (Mesibov, 1983).

Acknowledgments

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References


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Self-assessed sexuality in young adults with High-Functioning Autism

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1. Introduction

Autism is classified as a pervasive developmental disorder characterized by impairments in verbal and non-verbal communication, social interaction, imagination, and restricted, repetitive behaviour (American Psychiatric Association, 1994; National Institute of Mental Health, 2008). The social deficits are among the most distinguishing features of autism. As children, autistic individuals may seem distant, unresponsive, and lack cooperation and engagement with others (Prior & Ozonoff, 1998).

As a result of the social deficits inherent in autistic individuals, such individuals experience difficulty in sexual interactions (Henault, 2005). Few studies have investigated sexuality in autistic individuals or compared the results to Typically Developing (TD) individuals. Attwood (1998) explains that readily available sources such as pornography may cause autistic males to display unintentional aggressive or stalking behaviour because they may consider pornography as the authoritative source. Autistic females may learn from the ‘soap operas’ on television as a guide to being intimate, and they may be overly naïve or promiscuous without being able to recognize a precarious situation due to lack of experience and poor judgment (Attwood, 1998; Henault, 2005). Thus, it is important for studies to investigate where autistic individuals obtain their information about socio-sexuality and how much of it is actually applied in real life.
A number of theories exist suggesting the causes of autism. These include deficits in the individuals Theory of Mind (ToM), while another prominent theory concerns sexual dimorphism in the brain, known as Extreme Male Brain (EMB) theory. ToM asserts that autistic individuals are unable to comprehend or recognize the thoughts, feelings, intentions of others or that other people have ‘minds’ (Prior & Ozonoff, 1998). EMB theory, proposed by Knickmeyer and Baron-Cohen (2006), suggests that males possess greater ability to systemize which is to understand systems in terms of rules. The ability to empathize means to show appropriate emotional responses, and use ToM, which is argued to be superior in females. Autism is associated with systemizing rather than empathizing (Knickmeyer & Baron-Cohen, 2006). Since the occurrence of autism is four times more frequent in males than females, EMB theory proposes that autism is an exaggeration of typical sex differences.

Due to the lack of verbal and communication skills, autistic individuals also experience difficulty processing non-verbal information surrounding the presentation of verbal information (Losh & Capps, 2006), such as that used typically in social situations when social graces may dictate unclear or ambiguous responses. For instance, when one party is politely rejecting the romantic advances of another. Consequently, autistic individuals may not understand it when someone may mean “no”, but expressing this subtly (verbal) because the person’s body language (observable behaviour) may not be portraying the same message. A case study by Carrington, Templeton, and Papinczak (2003) investigated the perceptions of friendship in individuals with Asperger’s Syndrome. Based on a number of individual cases, it was found that the adolescents lacked insight into judgement, what constitutes friendship, and had difficulties verbally describing friendship issues. It was thought this may have been because individuals with autism have trouble interpreting social subtleties, limiting their appropriate use of relational reciprocity (Carrington et al., 2003).

Few studies have been undertaken to date that explore aspects of sexual and social function in HFA. Among those that have been published, include Van Bourgondien, Reiche, and Palmer (1997) who used caregiver responses to investigate the sexual behaviour of 89 autistic adults; Stokes and Kaur (2005) who investigated the parental perspective from parents of 73 adolescents with HFA; Stokes, Newton, and Kaur (2007) who examined 25 HFA adolescents and adults pursuit of romantic interests; Ruble and Dalrymple (1993) undertook a parental survey (n = 100) to address the socio-sexual awareness and sex behaviours of autistic persons; Ousley and Mesibov (1991) interviewed 21 HFA adults and 20 mildly to moderately intellectually disabled adults to investigate sexual attitudes, experience, and knowledge of male and female participants; and, similarly, Konstantareas and Lunsky (1997) who undertook a study comparing 15 autistic participants and 16 developmentally delayed participants. Van Bourgondien et al. (1997) found the majority of participants expressed person-oriented sexual behaviours, they yet failed to clearly define how “sexual arousal” was assessed by caregivers, leaving it unclear as to how this was assessed in both male and female participants. Stokes and Kaur (2005) reported that as age increases, typical adolescents improved in privacy and knowledge of sex education, in contrast to HFA adolescents, who showed little improvement. Stokes et al. (2007) reported that HFA participants persisted in pursuing a romantic interest significantly longer than TD participants when there was no response ($R^2 = 0.21$) or even a negative response from the person ($R^2 = 0.28$). Ruble and Dalrymple’s (1993) study gives evidence for deficits in social awareness because of the public nature of the sexual behaviours displayed by participants. Ousley and Mesibov (1991) found a positive correlation ($R^2 = 0.17$) between IQ and sexual knowledge. Although the amount of sexual activity seemed to be limited in autistic individuals, the study did reveal a greater interest in sexuality than previous literature may have suggested. Konstantareas and Lunsky (1997) found that although participants had quite sound knowledge by recognition of socio-sexual aspects, levels of awareness cannot be compared with complexity of understanding a concept. The study measured ‘attitudes’ through illustrations shown to the participants who would respond with either a ‘thumbs up’ or ‘thumbs down’, but besides the illustrations being of the sexual kind, there was no indication as to whether or not they were considered appropriate or not. Thus, the finding that autistic participants ‘endorsed’ more items than developmentally delayed participants does not provide a clear understanding about what they actually ‘endorsed’. These studies suggest an interest in sexual behaviour among persons with autism, yet each of these studies has a fundamental flaw. Each assumes that the respondents will be unable to provide adequate insight into their own behaviour.

The literature has revealed that autistic persons of all ages show an interest and experience in sexuality and relationships but their poor social and communication skills may prevent them from this. However, there is still need for more extensive research to be undertaken in this area since the reviewed studies are not based on direct reports from autistic individuals, so the proposed research will use this method. Further, the focus will be on young adults only (aged between 18 and 30 years), and comparisons will be made against TD participants and HFA participants utilising a modified version of the Sexual Behaviour Scale (SBS) used in Stokes and Kaur’s (2005) study. We aimed to establish if young adults with HFA were able to answer an instrument about their sexualised behaviours. We hypothesised that compared to Typically Developing (TD) persons, persons with High-Functioning Autism (HFA) would report lower levels of sexual experience, sexual, and social behaviour, and less understanding of privacy, which would be measured through various subscales of the Sexualised Behaviour Scale.

2. Method

2.1. Participants

Participants with HFA or AS were contacted through various community groups, which distributed flyers to interested participants outlining the nature of the research. Participants could choose to complete questionnaires online or in hard-copy which could be sent out to community groups. Participants self-designated as either having HFA or being TD.
Questionnaires were distributed to 90 individuals. A total of 70 responses were received. Of these 46 were manual responses from TD respondents, and 24 were electronic from individuals with HFA. Several studies have examined for systematic biases in responses due to the use of differing response methodologies, and have reported that the two techniques do not result in systematic response biases and give highly compatible and reliable data (cf. Fortson, Scotti, Del Ben, & Chen, 2006; Riva, Teruzzi, & Anolli 2003; Vallejo, Jordán, Díaz, Comeche, & Ortega 2007).

Following removal of cases with excessive missing data, this left 39 Typically Developing (TD) young adults and 21 individuals with High-Functioning Autism (HFA) or Asperger's Syndrome (AS) recruited for this study. Due to the lack of evidence that HFA and AS are distinguishable conditions, all cases of AS will be reported as HFA. The TD group consisted of 15 males (M = 23.7 years, SD = 3.1) and 24 females (M = 22.6 years, SD = 2.1), and the HFA group consisted of 12 males (M = 25.3 years, SD = 3.6) and 9 females (M = 23.4 years, SD = 1.9). There was no significant difference between the groups on the basis of age, t(58) = 1.73, p > 0.05. Ethics approval was obtained for this study from the Deakin University Human Research Ethics Committee (Ethics approval number: 124-2008).

2.2. Materials

The instrument used in this study was an adapted version of the Sexual Behaviour Scale (SBS) used previously as a parental questionnaire in Stokes and Kaur's (2005) study. This instrument was modified for this study to measure direct responses from participants. The SBS consisted of six sections: (1) Social Behaviour, (2) Privacy, (3) Sex Education, (4) Sexualised Behaviour, (5) Sexual Experience, and (6) Future Concerns. Scores for each scale were computed by adding all scores in each particular scale, dividing this by the number of possible scores in the scale, and then dividing this by the maximum number score possible which produced a proportionate score between 0 and 1. Some scales included open-ended questions where participants may specifically indicate any other behaviour or concerns.

2.2.1. Social Behaviour

This subscale obtained responses about social companions and activities. This construct measured whether participants engaged in social behaviours, and with whom these social activities were undertaken. Most of the seven items on this subscale required ratings from 0 to 3 (0 = rarely, 1 = sometimes, 2 = often, 3 = always). A higher score on this scale reflects higher levels of social behaviour.

2.2.2. Privacy

This subscale assessed whether participants were seeking privacy for behaviours, awareness of privacy rules, and how these rules were learnt. Privacy was separated into three sections: (1) Privacy seeking behaviour (6 items) which required ratings from 1 to 4 (0 = rarely, 1 = sometimes, 2 = often, 3 = always); (2) Awareness of privacy rules (4 items) which required a “yes” or “no” response (0 = yes, 1 = no); and (3) How these rules were learnt (8 items) which required a “yes” or “no” response (0 = yes, 1 = no). A higher score on this scale reflects greater knowledge regarding privacy rules.

2.2.3. Sex Education

This subscale measured level of sex education and what the source is. Sex Education was divided into two sections: (1) types of sex education knowledge (9 items) which required a “yes” or “no” response (0 = yes, 1 = no); and (2) where the sex education was obtained (8 items) required a “yes” or “no” response (0 = yes, 1 = no). A higher score on this scale indicates more sex education knowledge.

2.2.4. Sexualised Behaviour

This subscale was developed to assess the amount and type of sexualised behaviour elicited by participants publicly, whether or not these were of concern, and also if participants’ had any difficulties in understanding sexual reciprocation. This construct mostly required a “yes” or “no” response (0 = yes, 1 = no). A higher score on this scale indicates a higher level of public sexualised behaviour.

2.2.5. Sexual Experience

This included questions directly asking if participants had specific sexual experiences. The items required a “yes” or “no” response (0 = yes, 1 = no). A higher score on this scale reflects higher amounts of sexual experiences.

2.2.6. Future Concerns

This scale measured concerns for the future regarding finding a life partner and anticipating others misinterpreting the participants’ behaviour. The items required a “yes” or “no” response (0 = yes, 1 = no). A higher score on this scale indicates greater concerns for the future.

2.3. Data screening

Data were screened for missing values, outliers, and normality. Of the 70 returned instruments (electronic and manual), 10 cases were excluded from the data, 3 HFA and 7 NT, due to more than 5% of missing data, predominantly from the Privacy
scale. Therefore it was decided to exclude this subscale on a pairwise basis in relevant analyses. No univariate or multivariate outliers were found. Tests of normality revealed significant skew in the Sex Education scale ($z = 3.66$), and significant skew ($z = 5.70$) and kurtosis ($z = 4.29$) in the Sexual Experience scale (Table 1). Examination of histograms revealed that violations of normality were due to a high level of sexual experience and sex education reported by participants; these results are expected for this age and population. As MANOVA as a technique is considered robust to mild violations of normality (Keppel, 1991), and that as in all instances, skew and kurtosis were mild (Tabachnick & Fidell, 2007), the data was retained in the analysis untransformed.

3. Results

3.1. Instrument reliability

Descriptive statistics are detailed in Table 1. A test of reliability was obtained using Cronbach’s alpha (Table 2). The Social Behaviour, Privacy, and Sexual Experience Scales showed moderate to strong correlations on items, demonstrating high reliability. The reliability of both the Sex Education and Sexualised Behaviour Scales were poor. No item removal was found that would significantly address this issue. However, because we were testing against a published instrument, these scales were retained. The Future Concerns scale consisted of only two questions, therefore was not assessed for reliability.

3.2. Group trends

Table 3 provides details of scale scores for both groups. Scores are based on proportions between 0 and 1, with higher scores reflecting greater levels of social behaviour, privacy knowledge, sex education, public sexualised behaviour, sexual experience, and concerns for the future. Fig. 1 illustrates that compared to TD Participants, HFA participants scored lower on...
levels of social behaviour; lower on knowledge of sex education; lower on amount of sexual experiences; had higher future concerns; lower on their knowledge of privacy; and higher on the amount of public sexualised behaviour.

3.3. Hypothesis tests

A multivariate analysis of variance (MANOVA) was undertaken to determine if the two groups (HFA and TD) differed on the six dependant variables of Social Behaviour, Privacy, Sex Education, Sexualised Behaviour, Sexual Experience, and Future Concerns. A multivariate test was used since previous literature reveals that the dependant variables relate to each other (Stokes & Kaur, 2005).

As Box's M test of homogeneity of variance–covariance was significant (Box's $M = 89.2, F(21,6333.8) = 3.7, p < 0.001$) the test of significance used was Pillai's Trace criterion in conjunction with a more stringent significance level at $p < 0.01$. Multivariate results indicate that HFA and TD participants significantly differed, (Pillai's Trace $= 0.5, F(6,53) = 10.5, p < 0.01$), and that diagnosis was accounted for 54% of variance among the DVs (partial $\eta^2 = 0.54$).

Levene's test of homogeneity of variances within each of the six subscales indicated univariate violations in Sex Education ($F(1,58) = 21.2, p < 0.01$) and Sexual Experience ($F(1,58) = 16.6, p < 0.01$). Consequently, univariate results were assessed against a more stringent alpha ($p < 0.01$).

Univariate ANOVAs found significant differences across groups for four of the dependant variables: Social Behaviour, Sex Education, Sexual Experience, and Future Concerns. The two variables which showed no significant difference between the groups were Privacy and Sexualised Behaviour (see Table 4).

In summary, young adults with HFA (1) engaged in less social behaviour than TD (partial $\eta^2 = 0.45$); (2) reported less knowledge of sex education (partial $\eta^2 = 0.29$); (3) had fewer sexual experiences (partial $\eta^2 = 0.29$); (4) expressed more concerns for the future (partial $\eta^2 = 0.16$); (5) showed similar levels of knowledge about privacy rules as TD (partial $\eta^2 = 0.11$); and (6) reported similar levels of public sexualised behaviour (partial $\eta^2 = 0.03$).

As it is possible that with development, some of these effects might be ameliorated or modified, we repeated the analysis controlling for age. Age was used as a surrogate for development, as development generally increases with age. Age did not significantly contribute to the set of dependent variables (Hotelling's Trace $= 0.21, F(6,52) = 1.85, p > 0.01$, partial $\eta^2 = 0.18$), however, the omnibus MANCOVA remained significant (Hotelling's Trace $= 1.07, F(6,52) = 9.24, p < 0.001$, partial $\eta^2 = 0.52$). At the univariate level age contributed to social behaviour, but not to any other dependent variable (see Table 5). Diagnosis remained significant for Social Behaviour, Sex Education, Sexual Experience, and Future Concerns. Privacy and Sexualised behaviour remained non-significant.

Table 4
Univariate results for MANOVA.

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>$F$</th>
<th>$p$</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Behaviour</td>
<td>1, 58</td>
<td>46.97</td>
<td>&lt;0.001</td>
<td>0.45</td>
</tr>
<tr>
<td>Privacy</td>
<td>1, 58</td>
<td>6.83</td>
<td>0.011</td>
<td>0.11</td>
</tr>
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<td>Sex Education</td>
<td>1, 58</td>
<td>23.16</td>
<td>&lt;0.001</td>
<td>0.29</td>
</tr>
<tr>
<td>Sex Behaviour</td>
<td>1, 58</td>
<td>2.03</td>
<td>0.160</td>
<td>0.03</td>
</tr>
<tr>
<td>Sex Experience</td>
<td>1, 58</td>
<td>24.15</td>
<td>&lt;0.001</td>
<td>0.29</td>
</tr>
<tr>
<td>Future Concerns</td>
<td>1, 58</td>
<td>11.16</td>
<td>0.001</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Fig. 1. Profile of scores with SEM for each scale by group.
and clinically this is a noted difference among persons with HFA (most likely because they felt they would benefit from this without actually needing it. benefit from more sex education were not because they were experiencing difficulties or a lack of sexual behaviour; but it is sexual experience, and levels of sex education, it may be concluded that TD participants' reports suggesting they would benefiting from more sex education. However, due to the significantly different results in amount of social behaviour and interaction difficulties described by Attwood (1998) and Henault (2005), such as males behaving in an over-aggressive manner, and females being excessively naïve. Further, sex education levels were found to be lower for the HFA group compared to the TD group. Given what is known from clinical work (Attwood, 1998; Henault, 2005), about HFA individuals lack of knowledge and raised anxiety levels, lower sex education may be associated with lower levels of overt sexual behaviour. It was also found that most HFA persons reported that they learnt their sex education from themselves or from friends and peers, rather than from an authoritative source such school or parents; this might mean that HFA individuals are displaying incorrect or inappropriate knowledge about socio-sexuality.

It was hypothesised that compared to TD, persons with High-Functioning Autism (HFA) would reveal lower levels of sexual experience, sexual, and social behaviour, and less understanding of privacy on various subscales of the Sexualised Behaviour Scale. The results of this present study supported the hypothesis, although privacy scores were similar amongst the two groups. The hypothesis was assessed using the Sexualised Behaviour Scale, with findings revealing significant differences between HFA and TD participants on all scales except for Privacy and Sexualised Behaviour. When the analysis was covaried for age, the results were essentially unchanged.

In line with previous findings using only a parental report such as Stokes and Kaur’s (2005), this current study found that individuals with HFA report engaging in fewer social behaviours than TD individuals. This result was as expected due to the nature of the disorder and the profound deficits in social interactions (American Psychiatric Association, 1994). The results also illustrate lower levels of sexual behaviours among HFA participants, indicating that this may be due to the social interaction difficulties described by Henault (2005), about HFA individuals lack of knowledge and raised anxiety levels, lower sex education may be associated with lower levels of overt sexual behaviour. It was also found that most HFA persons reported that they learnt their sex education from themselves or from friends and peers, rather than from an authoritative source such school or parents; this might mean that HFA individuals are displaying incorrect or inappropriate knowledge about socio-sexuality.

It was found that HFA participants also reported that they would benefit from more sex education. Two participants revealed concern about “wet dreams” and “When I get aroused” which demonstrated that they may be lacking in information regarding their own sexual physical responses. Interestingly, a majority of TD participants also reported benefiting from more sex education. However, due to the significantly different results in amount of social behaviour and sexual experience, and levels of sex education, it may be concluded that TD participants’ reports suggesting they would benefit from more sex education were not because they were experiencing difficulties or a lack of sexual behaviour; but it is most likely because they felt they would benefit from this without actually needing it.

The non-significant result between the two groups on the Privacy scale was surprising, in the sense that both anecdotally and clinically this is a noted difference among persons with HFA (Henault, 2005). Quite possibly, the generally reported lack of insight into appropriateness of behaviour led individuals with HFA to remain unaware of their lack of understanding in this area. Alternatively, there may have been no difference between these groups in this study. However, the qualitative evidence suggests that the HFA may simply lack insight. For instance, one HFA participant reported seeking further privacy

### Table 5

Univariate results of MANCOVA controlling for the effects of age.

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Social Behaviour</td>
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<td>8.64</td>
<td>0.005</td>
<td>0.13</td>
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<tr>
<td></td>
<td>Privacy</td>
<td>1, 57</td>
<td>-0.01</td>
<td>0.952</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Sex Education</td>
<td>1, 57</td>
<td>0.15</td>
<td>0.702</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>Sex Behaviour</td>
<td>1, 57</td>
<td>&lt;0.01</td>
<td>0.999</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Sex Experience</td>
<td>1, 57</td>
<td>2.22</td>
<td>0.142</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Future Concerns</td>
<td>1, 57</td>
<td>0.15</td>
<td>0.704</td>
<td>0.01</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>Social Behaviour</td>
<td>1, 57</td>
<td>40.96</td>
<td>&lt;0.001</td>
<td>0.42</td>
</tr>
<tr>
<td></td>
<td>Privacy</td>
<td>1, 57</td>
<td>6.27</td>
<td>0.015</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>Sex Education</td>
<td>1, 57</td>
<td>22.41</td>
<td>&lt;0.001</td>
<td>0.28</td>
</tr>
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<td>1.88</td>
<td>0.175</td>
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</tr>
<tr>
<td></td>
<td>Sex Experience</td>
<td>1, 57</td>
<td>20.06</td>
<td>&lt;0.001</td>
<td>0.26</td>
</tr>
<tr>
<td></td>
<td>Future Concerns</td>
<td>1, 57</td>
<td>10.98</td>
<td>0.002</td>
<td>0.16</td>
</tr>
</tbody>
</table>

### 3.4. Qualitative data

Some scales included optional sections for participants to note down extra concerns, or specify behaviours or learning sources for their sex education. In the Privacy scale, participants may specify if there are any additional activities they sought privacy for which were not listed in the scale. TD participants specified “sex”, “journal writing”, “study”, and “reading letters”; HFA participants responded with “sleeping” and “dreaming”. In the Sex Education scale, participants could write any other sources from where they obtained their sex education. TD participants mentioned no further resources; HFA participants specified “TV” and “by making mistakes”. In the Sexualised Behaviour Scale, TD participants responded that the last time they removed clothing in public was “yesterday took off jacket” and “summer at the beach”; HFA participants responded to this as “month ago”, “week ago”, and “yesterday” by “taking off my shirt” and “taking my pants off but there was underwear”. Also in this scale, participants may indicate any concerns they have about their sexual responses. HFA participants reported they were concerned about “wet dreams” and “when I get aroused”.

### 4. Discussion

It was hypothesised that compared to TD, persons with High-Functioning Autism (HFA) would reveal lower levels of sexual experience, sexual, and social behaviour, and less understanding of privacy on various subscales of the Sexualised Behaviour Scale. The results of this present study supported the hypothesis, although privacy scores were similar amongst the two groups. The hypothesis was assessed using the Sexualised Behaviour Scale, with findings revealing significant differences between HFA and TD participants on all scales except for Privacy and Sexualised Behaviour. When the analysis was covaried for age, the results were essentially unchanged.
for “sleeping” and nothing else, compared to TD participants who sought further privacy for intimate behaviours such as “sex” and “journal writing”.

Grandin (1995) points out that the difficulty persons with HFA have processing language renders it difficult for these persons to understand the subtle meanings others wish to convey, especially in areas relating to privacy and sexuality. Therefore, not being able to correctly understand verbal cues given by people may cause persons with HFA to remain oblivious to others’ desires. When a person with HFA interacts with others, if the verbal cue from the other is insufficiently blunt, the cue may not cause persons with HFA to cease the undesired activity. This is because individuals with HFA have difficulties in verbal communication where social meanings and words such as “feeling” or “wanting” are not understood or communicated by individuals with autism (Prior & Ozonoff, 1998). This suggests raised difficulty in the understanding of these abstract communicative words, resulting in genuinely not being able to interpret what another person might want or feel, so an individual with autism may interpret cues incorrectly; this most likely caused the HFA participants in this study to report reduced sexual behaviour. Although there was no significant difference found on the question measuring reciprocation, it is interesting to note that two HFA participants reported that the difficulty they faced in not being able to understand what someone wanted was “When not to talk to them” and “why didn’t they want it when I thought they did”, again clearly demonstrating the idea that autistic individuals have difficulty interpreting verbal information.

One further result to consider is the significant difference found between HFA and TD participants on their level of future concerns. HFA participants had a much higher level of concern for their future, specifically reporting anxiety about the possibility of others misinterpreting their behaviour as sexual when it was not intended, and concerns about finding a life partner. The data suggest that persons with HFA have a high level of concern for future interactions. The Future Concerns subscale requires individuals to report how they feel presently, and as already mentioned, responses are based on situations previously experienced. This heightened anxiety for the future suggests that persons with HFA may require education about feelings or emotions accompanying various experiences. Further, this finding may indicate some reluctance on the part of persons with HFA to undertake the risks associated with entering relationships, despite wanting to, giving others the impression that persons with HFA lack the desire for romantic relationships.

Finally, this study suggests that persons with HFA may perceive circumstances incorrectly, as one question of the SBS explored the difficulty interpreting what others wanted. Therefore, it would be ideal to obtain triangulated reports such as parental/caregiver reports, along with direct reports from autistic individuals, and possibly even an observational account of the individuals. This kind of data collation would allow for detailed comparison of results from all sources, eliminating some of the informant biases due to the nature of the informant. Secondly, it would be helpful to obtain perspectives from the partner or former partner of autistic individuals to better understand the difficulties experienced in reciprocation and sexual interactions. Lastly, Stokes and Kaur’s (2005) study investigating sexual behaviour in 10–15 year old participants, predicted that as age increases, socio-sexual behaviour would improve, whereas this current study shows that within the age range of this study, age did not contribute significant variance; therefore, this suggests that if socialisation is not addressed at a young age, the behaviour of persons with HFA will continue to remain different from neurotypicals.

The current research has found no significant differences between HFA and TD participants in dysfunctional sexualised behaviour. This finding may be due to individuals having a lack of insight into what constitutes a relationship, and a lack of judgement in situations, but this study was unable to elucidate this, and will require a sample with valid external reports to reveal this. Further, persons with HFA also experience difficulties interpreting verbal cues. Given this, HFA individuals did not report differences on their sexualised behaviours compared to TD individuals. Overall, compared to TD individuals, HFA individuals engaged in fewer social behaviours, had less sex education and fewer sexual experiences, had more pronounced concerns for the future, and showed similar levels of privacy knowledge and public sexualised behaviour. These findings suggest a need for specialised sex education programs for autistic populations; further, since social behaviour was significantly lower for autistic individuals and future concerns were higher, this suggests that sex education programs need to incorporate education about social rules to enhance social communication and understanding.

References


