

Supplementary Material 7: Interventions included and their participatory components

DOI, authors, title	Name	Type	Sexual topic	Expected effect of the intervention	Intervention designer	Duration/time	Location	Objective/Purpose	Intervention facilitator	Specific intervention for disabled	Young people's interaction/participation	Intervention description
DOI: 10.1111/jocn.13215 Altundağ , Çalbayram Teaching Menstrual Care Skills to Intellectually Disabled Female Students	No name	Group education training Demonstration of behaviors with the help of a dummy and other materials	- Puberty - Body image - Sexual physiology - Menstruation	Develop biological and functional knowledge, knowledge of oneself and one's body, develop autonomy, hygiene and the technical use of equipment	School nurses	NI*	Specialized school	Teach pad replacement skill and other menstrual care skills with the help of a dummy to intellectually disabled adolescent female students who reached the age of menstruation	Healthcare professionals: school. nurses	Yes	Oral exchanges in groups of 5 during learning workshops	Training and skill developing stage 1) Brief information on the age of the onset of puberty and associated physical changes 2) Information on the onset of menstruation (periods, material used, time of menstruations) 3) How to use pads (pad placement and replacement training) 4) Specific cleaning habits (shower, hygiene, cleaning, toilet) Training menstruations with a doll and other materials specific to menstruation (pad, toilet paper, hand towel, wastebasket) Steps shown on the doll, experimented one by one on the doll to observe the skill steps accomplished
DOI: 10.1007/s11195-015-9424-6 Corona et al. Providing Education on Sexuality and Relationships to Adolescents with Autism Spectrum Disorder and Their Parents	No name	Group education training using verbal conversation, prompts and visual representations	- Love and emotional life - Sexual relationships - Sexual well-being - Sexual activity - Sexual violence - Harassment and rape - Sexual consent - Access to sexual and reproductive services - Sex education - Sexual rights - Puberty - Body image - Sexual physiology - Maturation - Masturbation	Develop biological and functional knowledge, knowledge of self and body, develop autonomy and critical thinking skills. Develop social connections communication and emotional skills	Psychology researchers	3 months	University-affiliated autism center	Provide sexuality and relationship education to adolescents with ASD and their parents	Clinical psychology doctoral student and a behavior specialist	Yes	Discussions with each other and with speakers during educational sessions. Opportunity to ask questions and exchange skills throughout the course.	Parent and adolescent sessions took place simultaneously at the same location, but in separate rooms. Education program: six 2-hour sessions over 3 months. Six main topics discussed with the young people and their parents. Verbal conversation and prompts accompanied by visual representations of the subject matter. Each session included a review of the schedule and a list of rules for appropriate conduct. Adolescents received rewards for their willingness to participate and compliance with group rules. The schedule was posted on the wall and referred to throughout the session. The parent sessions covered the same topics. Each subsequent session began with an opportunity for questions about the previous sessions.

			- Privacy - Hygiene - Physical contact - Friendship development - Electronic, dating behavior - Personal safety									
DOI: 10.1080/15546128.2020.1831677 Faught et al. Social Boundaries in Young Adult Females with Down Syndrome as a Foundation for Sexuality Education	Circles App	Online intervention in the form of role-playing and role-playing situations (videos to be viewed containing information)	- Love and emotional life - Social boundaries (including love, sexuality and touching close people) - Sexual consent - Intimacy	Develop critical thinking, social skills and communication. Develop appropriate social behaviors and intimate social relationships	Researchers and healthcare professionals	NI*	Online	Teach appropriate sexuality and social boundaries thanks to technology	Researchers and healthcare professionals	Yes	NI*	The CirclesVR app utilizes a color-coded, circular rainbow model to teach social distance and demonstrate various levels of intimacy. There are 7 multi-colored, concentric circles within the CircApp, 5 of which offer space for 5 pictures or icons. In the center of the app a purple “private” circle symbolizes the user, who can upload a photograph of themselves or create an avatar. The outer red “stranger” circle does not allow for placement of photos or avatars. The innermost circle that surrounds the purple “private” circle represents intimate relationships, while the most distant circle (red) represents strangers
DOI: 10.1007/s11195-019-09582-7 Frank, Sandman Supporting Parents as Sexuality Educators for Individuals with Intellectual Disability: The Development of the Home B.A.S.E. Curriculum	Home Based Adolescent Sexuality Education for Intellectual Disabilities (Home B.A.S.E.) Curriculum	Educational workshops using an assortment of activities: video viewing with discussion group, small-group discussion where parents meet face-to-face to learn and share experiences, case studies, role-playing, take-home activities and action plan	- Love and emotional life - Sexual relationships - Sexual well-being - Sexual activity - Sexual partners - Sex education - Sexual and reproductive rights - Sexuality myths - Dating - Sexual communication	Develop social connections, communication, supportive environments and confidence to communicate about sexuality and healthy relationships	Occupational therapist and clinical social worker	1 month	NI*	Provide sexuality training for parents of adolescents (ages 12–19) with ID. Increase parents’ comfort and confidence in discussing sexuality and healthy relationship topics with their adolescents with ID	Clinical social worker + occupational therapist	Yes	NA** Parents can interact with each other in the form of discussion groups and experience-sharing sessions	Three sessions over 1 month. Sessions were held for 2 consecutive weeks, followed by 1 week off before the final session. Each session lasted 3 h. Seven learning objectives on sexuality topics were established. Each session of the workshop addressed many of the seven learning objectives and utilized an assortment of activities, taking into consideration adult, social, and transformational learning theories. Learning activities included watching a video, sharing of experiences, dialogue, small group discussion, case study, role play, take-home activities, action plan, true/false survey. Session 1: deconstruction of myths, definition of sexuality, identification of problems, introduction of rights (myths and barriers), group activities and announcement of personal work: making an action plan. Sessions 2: resumption of homework, videos on rights, discussion on the benefits of sexuality education, group activities on

												sexuality topics, strategic framework and receipt of resources. Role-playing following the action plan for communication with one's children. Introduction to problem-solving Session 3: Listening to speakers and questions, reactions to the session, completing the action plan, sharing with the group + completing evaluation
DOI: 10.1007/s11195-017-9499-3 Graff et al. Relationships and Sexuality: How is a Young Adult with an Intellectual Disability Supposed to Navigate?	Positive choices (PC)	Group study curriculum for teaching students on sexuality. This curriculum use a teacher's notebook and a student's notebook containing educational material in simplified English with colorful, contemporary images included in the units are a variety of activities including decision making and role playing activities	- Love and emotional life - Sexual relationships - Sexual well-being - Sexual activity - Sexual violence - Sexual consent - Contraception - Reproductive health - Sexual partners - Sex education - Rape and harassment - Self-awareness - Sexual maturation - Sexual life cycle - Sexual safety	Develop biological and functional knowledge, knowledge of oneself and one's body, develop autonomy, critical thinking and decision-making.	Oak Hill Center for Relationship and Sexuality (CRSE)	NI*	At school	Teach students components of healthy relationships, particularly for this age group and population.	Ph.D. student, master's student	NI*	NI*	Curriculum focused on teaching students components of healthy relationships. It included a teacher workbook with outlined objectives, goals, lesson plan and activities. The students also had a workbook with educational material, pictures, fill-in-the-blank sections, homework, activity sheets. The curriculum contains five chapters: (1) relationships and self-awareness, (2) maturation, (3) the life cycle, (4) sexual health, and (5) being strong, staying safe. Including decision making and role-playing activities. Chapter assessments were used as pre- and post-tests
DOI: 10.1089/jayao.2018.0025 Granela et al. Sex Education for Children and Adolescents with Type 1 Diabetes in Camagüey Province, Cuba	No name	Courses in a pediatric diabetes clinic that included a workshop using a productive teaching methodology and participatory techniques	- Contraception - Sexual screening - Sexually transmitted infection - Access to sexual and reproductive services	Develop biological and functional knowledge	Healthcare professionals (endocrinology department)	6 weeks	Health structure	Raise awareness about specific aspects of sex education and STIs among type 1 diabetic adolescents treated at the pediatric DM clinic of PEPC's endocrinology service	Healthcare professionals	Yes	Communication at day camp, oral participation in courses, participative techniques such as	Course in the PEPC pediatric diabetes clinic over a 6-week period. Six weekly one-hour sessions that included a workshop using productive teaching methodology and participatory techniques such as brainstorming. The model also included a DM day camp (a week of day-long educational and recreational activities for young people with diabetes and their parents or guardians) in the Camagüey Diabetic Care Center

		such as brainstorming . The model also included a DM day camp (a week of one-day educational and recreational activities)									brainstorming	
DOI 10.1007/s11195-013-9288-6 Hilberink et al. A Pilot Implementation of an Intervention to Promote Sexual Health in Adolescents and Young Adults in Rehabilitation	No name	Group program in the form of discussion groups, games, crafts activities, role-playing, board games, homework assignment	- Love and emotional life - Sexual relationships - Sexual well-being - Sexual activity - Sexual partners - Sex education - Body image - Guarding borders - Emotions - Making contact	Develop self-awareness, body awareness, autonomy, critical thinking, social bonds, emotional skills, self-esteem and communication	Sexologist	15 months	Specialized school and a health structure	Promote sexual health and help to discuss sexuality and relationship issues with youth with chronic conditions	Pedagogues , psychologists, social workers, sexologist, teacher	Yes	Discussion and exchange of skills during the course	Seven 90-min sessions over 12 weeks. Group program description: 1. Introduction and getting to know each other 2. Attitudes towards romantic relationships and sexuality 3. Who am I and how do I think? Participants play the Emotion game 4. Body esteem. Participants have to color their satisfaction with their body 5. To court and being courted; how to flirt 6. Participants play the board game SeCZ TaLK 7. Items that the group wants to discuss and close of the program Each session ends with a homework assignment focusing on making contact and flirting. Homework assignments challenged the participants to experiment with new types of behavior The trainers of the group program received a train-the-trainer course by the sexologist who developed the group program (EK). The training addressed: (a) the rationale of the program, (b) the various tools, (c) group processes, and (d) implementation in their own setting
DOI: 10.1111/jar.12535 Janeslätt An Intervention Using the Parenting Toolkit “Children—What Does It Involve?”	The Parenting Toolkit and the RealCare Baby® (RCB) simulator	Role-playing using a simulator (RealCare Baby). This simulation was accompanied by knowledge transfer sessions and	- Pregnancy - Reproduction - Fertility - Parenthood	Develop autonomy and parenting skills/knowledge	Researcher and clinician	2 months	At school	Create insights about what it means to have a child so that persons with intellectual disability can make informed decisions about parenthood	Researchers , teachers and healthcare professionals	Yes	Questions and exchanges during the classroom sessions	Toolkit, The Parenting Toolkit, targeting young persons with intellectual disability, developed by researcher and clinician. The toolkit aims to create insights about what it means to have a child, so that persons with intellectual disability can make informed decisions about parenthood. It has been used in clinical practice for many years. In this project, we used two parts of the toolkit. The Parenting Toolkit: One card game, “What I wish”, is an introduction to the

and the Real-Care-Baby Simulator among Students with Intellectual Disability—A Feasibility Study		educational sessions using a toolkit (the Parenting Toolkit "Children—what does it involve?").						The objective of the RealCare Baby® simulator is to convey the needs of a newborn child				topic. It contains questions about wishes for future adult life; if it includes having children. The second part is a guide for conversations “Children—what does it involve?”. It contains user material and one manual per topic for the educator. Five topics covered: time, money, relationship, housing, and skills RealCare Baby (RCB) simulator: The baby simulator signals different needs and the carer must interpret and respond to the signals (hunger, rocking, new diaper, etc.). The level of care of the simulator is tracked and recorded
DOI: 10.3233/PRM-180547 Levin-Decanini et al. Implementation of Intimate Partner Violence Education for Adolescents with Spina Bifida	Material adapted from Futures Without Violence	Education session of healthcare professionals using adapted guidelines from the “Futures Without Violence” material	- Sexual violence and assault - Sexual harassment - Rape - Sexual partners - Access to sexual and reproductive services	Developing communication and educational skills	Health clinic	3 months	Health structure	Provide patients with information regarding Intimate partner violence (IPV) prevention	Healthcare professionals	Yes	NA**	Materials and methods adapted from an adolescent IPV educational training program utilizing the Futures Without Violence training materials. For one month prior to an educational training session, baseline data were collected from patients after their clinic visit about whether they discussed IPV during that visit. All interested staff (n = 8) attended an educational training session based on this previously tested, publicly available training The training session reviewed the use of an educational safety card to provide patients with information regarding IPV For two months following the training, adolescent patients were asked to complete a brief survey about their visit
DOI:10.1177/1362361319842978 Pugliese et al. Feasibility and Preliminary Efficacy of a Parent-Mediated Sexual Education Curriculum for Youth with Autism Spectrum Disorders	Supporting Teens with Autism on Relationships (STAR) program	Parent curriculum called Charting the Course: parent’s guide with simple visual diagrams, sample conversations and common questions with sample answers Interactive youth	- Love and emotional life - Sexual relationships - Sexual well-being - Sexual activity - Sexual orientation - Gender identity - Sexual violence - Harassment and rape - Sexual consent - Contraception	Develop biological and functional knowledge, knowledge of oneself and one's body, autonomy, critical thinking, group spirit, social bonds, communication and emotions, favorable behaviors for	Research organization and health agency	NI*	Online	Help parents to support and educate their children in learning the skills needed to navigate relationships, sexual health, and sexuality	Researchers and healthcare professionals	Yes	No interaction between young people	The final Charting the Course product is a curriculum designed to help parents of young people with ASD aged 9-18 years to support and educate their children in learning the skills needed to navigate relationships, sexual health, and sex Boardwalk Adventure is an interactive videogame and phone application developed in collaboration with professional designers. Adolescents create an avatar and earn tickets to a concert through beach boardwalk games that reinforce curriculum concepts such as puberty and personal hygiene, friendships and relationships, dating etiquette, and sexuality-related topics in an interactive and fun way

		computer game called Boardwalk Adventure: interactive videogame and phone application	- Sexually transmitted infection - Reproductive health - Sexual partners - Sex education - Puberty - Sexual physiology - Hygiene - Sexual communication	risk prevention								
DOI: 10.1080/15546128.2020.1800542 Rooks-Ellis et al. The Effectiveness of a Brief Sexuality Education Intervention for Parents of Children with Intellectual and Developmental Disabilities	No name	Group training for parents and caregivers. Sexuality education groups where parents/caregivers had the opportunity to ask questions (use of role-playing scenarios and social narrative during the training)	- Love and emotional life - Sexual relations - Sexual well-being - Sexual activity - Sexual orientation - Gender identity - Sexual violence - Harassment and rape - Sexual consent - Contraception - Pregnancy - Sexual reproduction - Sexually transmitted infection - Sexual screening - Sexual partners - Sex education - Sexual and reproductive rights - Access to SRH services - Puberty - Body image	Develop communication and the right attitudes and beliefs of parents	Researchers and healthcare professionals	NI*	Rural northeastern state as part of a conference breakout session	Encourage parents and give the keys to communicate about sexuality topics with their children thanks to sexuality education interventions	Researchers	Yes	NA**	Participants completed a brief overview about the study. They were given approximately 10 min to complete the pre-questionnaire. The parent training segment of the breakout session lasted 60 min. The sexuality education parent training included topics that are recommended by national organizations such as the importance of sex education, relationships, sexual behavior Participants were encouraged to deliver direct, structured information about sexuality topics by using the “I do it, we do it, you do it” strategy Parents were encouraged to begin conversations about sexuality with their child. Circles strategy was used to help families categorize their child’s real-life relationship. Another strategy shared was social narratives.

			- Sexual physiology - Anatomy - Sexual communication - Masturbation - Abstinence - Sexual fantasy - Sexual values and beliefs									
DOI 10.1186/s12888-015-0586-7 Visser et al. Study protocol: a randomized controlled trial investigating the effects of a psychosexual training program for adolescents with autism spectrum disorder	Tackling Teenage Training (TTT) program	Training program: individual intervention with discussion session, information transmission, take-home assignment and activities (behavioral rehearsals, knowledge and insight quizzes) Manual for the professional and a workbook for the adolescent	- Love and emotional life - Puberty - Physical appearances - First impressions - Physical and emotional developments - Friendships - Falling in love and dating - Sexual relationships - Sexual activity - Sexual partners - Sexual orientation - Masturbation - Sexual relationships - Pregnancy - Social boundaries - Safe internet use	Develop biological and functional knowledge, knowledge of oneself and one's body, critical thinking, communication and favorable behaviors for risk prevention	Researchers	12 months	NI*	Provide psychosexual guidance and increased knowledge about sexuality	Professionals with a bachelor's or master's degree in psychology or social services, with at least 3 years of working experience with people with ASD	Yes	NI*	The randomized controlled trial (RCT) described in this study protocol aims to investigate the effects of the Tackling Teenage Training (TTT) program on the psychosexual development of adolescents with ASD. This parallel clinical trial, conducted in the South-West of the Netherlands, has a simple equal randomization design with an intervention and a waiting-list control condition. 1849 adolescents and their parents participated in this study. We assess the participants in both conditions using self-report as well as parent-report questionnaires at three time points during one year: at baseline (T1), post-treatment (T2), and for follow-up (T3)
DOI: 10.1007/s11195-016-9465-5 Yıldız, Cavkaytar Effectiveness of a Sexual Education Program for Mothers of Young Adults with	Sexuality Education Program for Mothers of Young Adults with Intellectual Disabilities (SEPID)	Family education program applied to an institutional group including mothers (use of visual, audio and printed	- Love and emotional life - Sexual relationships - Sexual well-being - Sexual activity - Gender identity - Sexual violence	Develop communication, attitudes and perceived social support for sexuality education Support development, deal with problems	Experts and researchers	3 days	Seminar hall, Eskisehir Gokkusa gi (Rainbow Café)	Develop the attitudes of mothers toward the sexuality education of their children and their perceptions of social support	Researcher: All stages of the application were conducted by the first author	Yes	NA**	The SEPID is a family education program applied to an institution-centered group including mothers of young adults with ID. Four 1h sessions in a special café with ID people. Around 5 sections such as sexuality, sexual abuse, masturbation, sexual intercourse, sexuality education, relationships Intervention designed by experts to support the development of children in sexual

Intellectual Disabilities on Mothers' Attitudes Toward Sexual Education and the Perception of Social Support		materials, "circle of trust", social story, writing activities, dummy)	- Harassment and rape - Sexual consent - Contraception - Sexually transmitted infection - Sexual screening - Reproductive health - Sexual partners - Sex education - Puberty - Body image - Sexual physiology - Privacy - Sexual development - Masturbation - Menstruation - Hygiene									development areas and to inform about issues and the way to deal with problems This intervention uses visual, audio and printed material like a family guide book, slide, "circle of trust", masturbation training, dummy penis, pictures, social story writing activities
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* NI = no information; ** NA = not applicable; ASD = autism spectrum disorder; DM = diabetes mellitus; ID = intellectual disability; IPV = intimate partner violence; STI = sexually transmitted infection.