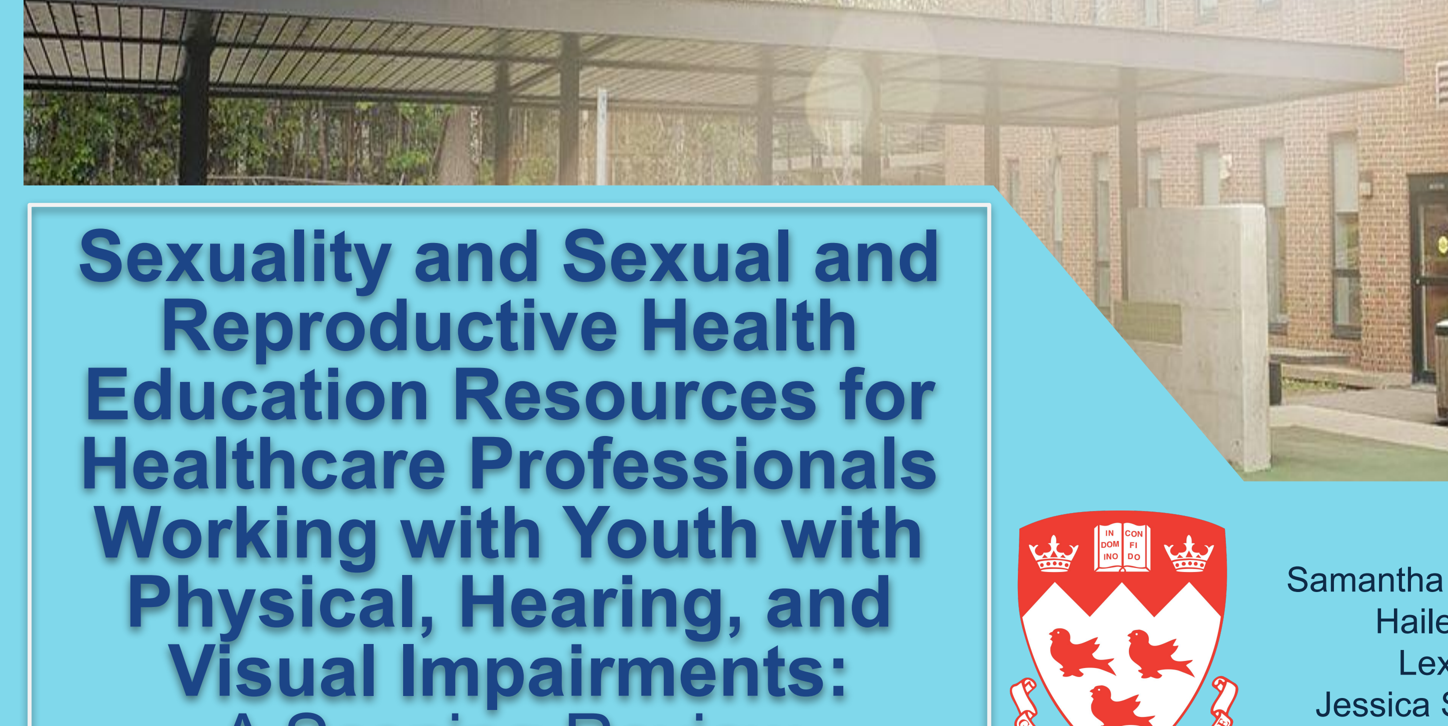


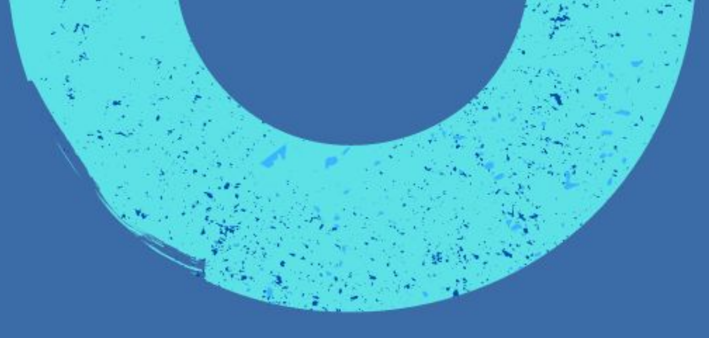
Sexuality and Sexual and Reproductive Health Education Resources for Healthcare Professionals Working with Youth with Physical, Hearing, and Visual Impairments:

A Scoping Review

Samantha Lapenna
Hailey Owens
Lexxus Reid
Jessica Saragosa
Kaylee Scott

We acknowledge that the land on which we gather is the traditional and unceded territory of the ***Kanien'kehá:ka (Mohawk) Nation****. The island called* ***Tiohtiá:ke (Montreal)*** *has long been a place of meeting and exchange for Indigenous peoples. We honor the Kanien'kehá:ka Nation's enduring connection to this land, as well as the histories, cultures, and ongoing contributions of* ***First Nations****,* ***Inuit****, and* ***Métis peoples****.*

Throughout our studies and practice, we commit to understanding and respecting the ongoing struggles of Indigenous communities, and to fostering positive relationships built on the ***principles of truth, equity,*** *and* ***justice****.*



Today's Agenda

Background

Methods

Results

Discussion

Conclusion

I. Background

Sexual Behavior in Youth with Impairments

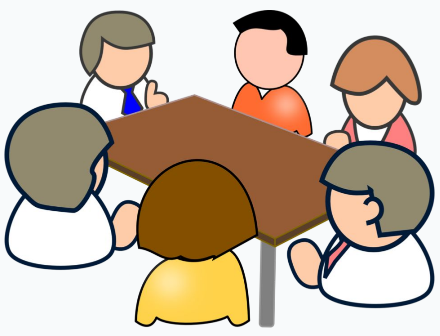
- Intimacy, sexual development and sexuality are **fundamental aspects of the human experience**[1].
- Research shows that youth with chronic disabilities are **at least as sexually active** as their non-impaired peers[1-4]
- It has also been shown that there may be higher rates of gender dysphoria in those with developmental conditions[5], but unfortunately, their sexuality and gender identity are often dismissed
- Not only is sex education inadequate for this population, but it is also poorly adapted to their disabilities. As a result, youth are left unsatisfied with their care and unprepared for young adulthood[9].

Sexuality, Sexual Health, and Intimacy Conversations

- For youth with impairments, conversations about sexuality, sexual health and intimacy **are taboo and occur seldomly**[5]
- **Parental overprotection, doubts** and **denial** of the adolescent's **sexual and reproductive capabilities and desires** contribute to the lack of open discussion surrounding the topic[2]
- Society, in general, tends to view those with physical disabilities as sexually innocent[27]; thus, parents may withhold appropriate SSRH education conversations in an attempt to shield their children

The Role of Healthcare Professionals

- As a consequence of societal assumptions and the difficulty that parents have addressing intimate conversations, the responsibility for educating youth with impairments regarding SSRH may be left to healthcare professionals[27, 28]
- This lack of clarity and knowledge of who is best equipped to do so often results in the topic being unaddressed altogether[9].
- Smith[32] identified **potential barriers** to providing SSRH education, **including fear of intrusion, feelings of inadequacy,** and **fear of offending the client.**



III. Methods
DATA

Methods

- **Aim:** To provide an overview of the available evidence and resources in the field of sexuality and sexual and reproductive health for youth with chronic physical, vision, and hearing impairment
- **Databases used:** OVID Medline, EMBASE, and CINAHL + grey literature
- **Search term examples:**
    - Terms relating to sexuality and sexual and reproductive health included “sexual behaviour”, “sexual education”, “contraception”, “homosexuality”, and “reproductive health”
    - Terms relating to disabilities such as “disabled persons”, “hearing impairment”, “blindness”, “cerebral palsy”, and “motor impairment”
- **Screening process:**
    - **1. Title and Abstract:** Each text reviewed by 2 members, conflicts resolved by a 3rd member
    - **2. Full text:** Each text reviewed by 2 members, conflicts resolved with full group
- **Extraction:** Each member extracted 8 articles, each extraction was reviewed by a member of the other profession (PT vs OT)

Identification

Studies from databases/registers (n = 2540)
Embase (n = 1328)
MEDLINE (n = 739)
CINAHL (n = 473)

Duplicates removed (n = 707)

Screening

Studies screened (n = 1833)

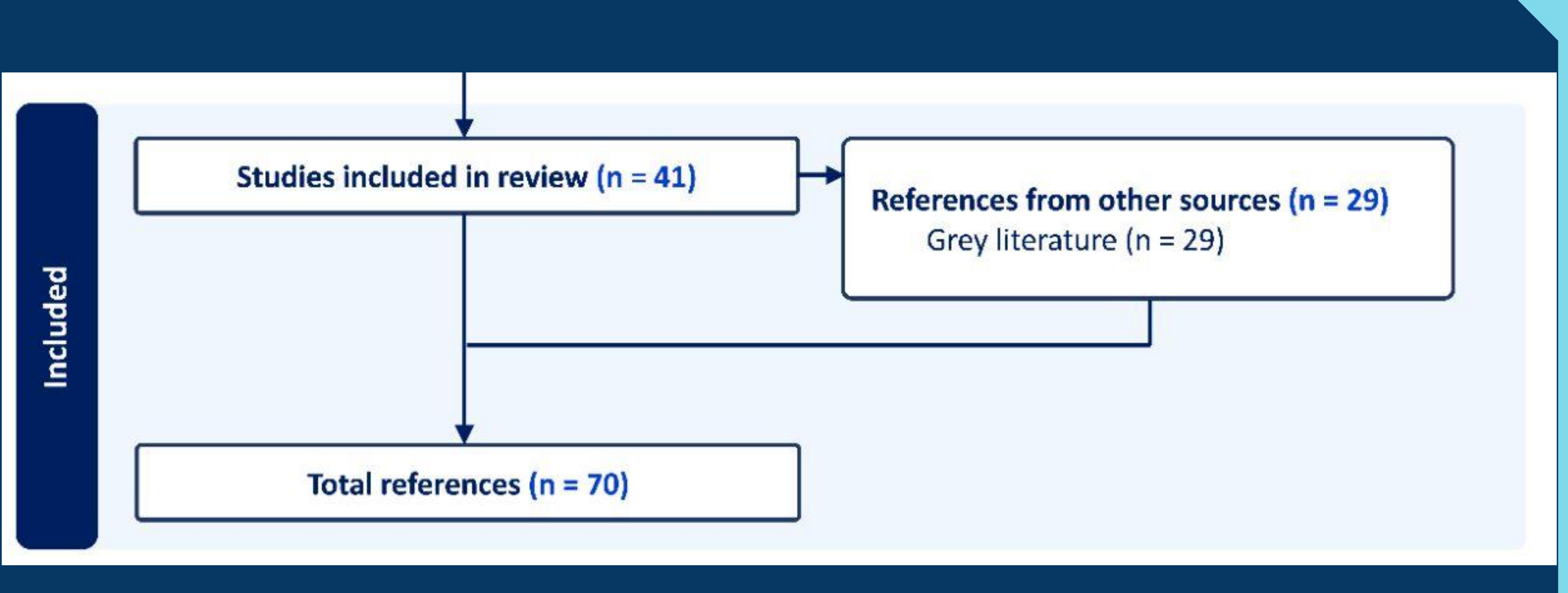
Studies excluded (n = 1642)

Studies sought for retrieval (n = 190)

Studies not retrieved (n = 30)

Studies assessed for eligibility (n = 160)

Studies excluded (n = 119)
- Not relevant (n = 21)
- Wrong setting (n = 3)
- Wrong outcomes (n = 75)
- Wrong patient population (n = 10)
- Outdated information (n = 9)
- Wrong language (n = 1)


Included
Studies included in review (n = 41)
References from other sources (n = 29)
Grey literature (n = 29)
Total references (n = 70)

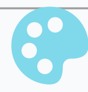
III. Results

Setting the Stage for Education

- A conversation regarding sexuality should be **initiated by a healthcare provider** early after admission and be an ongoing process[36, 51, 52]
- **Confidentiality** must be maintained by the healthcare professional[1, 47-49] and clients should feel confident that healthcare providers will maintain privacy regarding sexuality conversations[36, 53]
- Creating a **safe and inclusive environment** is conducive to free and open discussions and helps clients to feel comfortable asking questions[35, 49, 50, 54-56]
- Healthcare professionals should be cognisant that adolescents with disabilities have **sexual desires similar to their non-disabled peers**[35]
- It is important to recognize **sexuality as an essential component of a client's identity** and that sexual development is a normal part of adolescence[29, 36, 49, 58, 61, 64]

Tools and Topics for Education

Materials	Strategies
• Written materials[63] • Pictures and diagrams[53, 61, 63, 65, 66] • Audio visual materials and videos[53, 59, 63, 65] • Dolls with anatomical parts[1, 53, 54, 61] • Models of contraceptive methods[54] • Brochures and handouts[53] • Books[53] When possible, any materials used should depict individuals with disabilities[65, 66].	• Role playing[1, 53, 61, 63, 65] • Interactive games and exercises[53, 63, 65] • Peer-modeling[53, 63] • Workshops[53] Simplified materials and simple language should be used to maximize retention of information[1, 61, 63]. Begin with concrete steps and offer repeated opportunities to practice and review sexual education material[1, 56, 59-61].

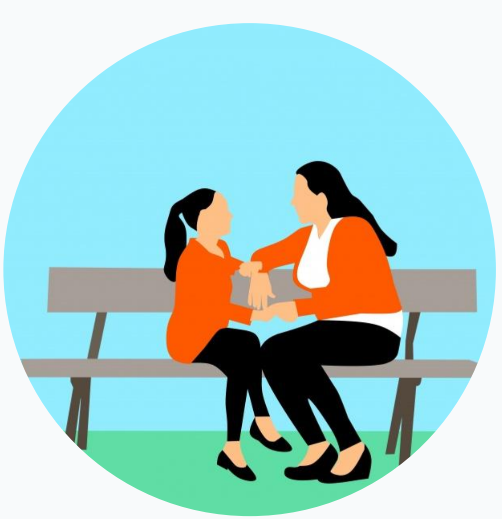


Tools and Topics for Education

Biology and Medical Information	Psychosocial Content and Behaviours	Consent and Personal Safety
• Anatomy and physiology of puberty and reproduction[1, 47, 57, 60, 62] • Body parts[1, 60, 61] • Contraception[1, 47, 54, 57, 60, 61] • Genetic counselling[47, 59, 61] • Medical examinations[1, 60] • Menstruation[54, 61] • Pregnancy[1, 36, 54, 61] • Sex and sexual development[1, 61, 62] • STIs/STDs[1, 61, 67]	• Body image[47] • Energy conservation[49, 68] • Gender identity[47, 62] • Interpersonal relationships[47, 56, 61, 62, 63] • Intimacy[47] • Personal care and hygiene[1, 60] • Physical boundaries[61] • Public and private places and behaviour[60, 61] • Sexual orientation[1, 47, 61] • Human sexuality[57, 63] • Self-image[60] • Sexual behaviour[29, 54, 63] • Sexual expression[1, 47, 60] • Social skills[1, 59, 60, 63]	• Appropriate and inappropriate touching[62] • Autonomy[35] • Consent[35, 56, 61, 62, 65] • Personal safety[35, 60] • Rights and responsibilities of sexual behaviour[1, 60] • Safe online practices[56, 62] • Sexual abuse[59, 61, 62, 65]

Parent and Guardian Involvement

- Before the client reaches the medical age of consent, parents should always be informed of what SSRH education will be provided and clinicians should address any of their concerns[59].
- Beyond the medical age of consent, it is **beneficial for parents to remain involved in sexual health discussion**, so long as the client agrees[36].
- Throughout these conversations with parents and clients, everyone should be reminded of the client's **ongoing right to sexual confidentiality**[36, 48]
- Parents should be **provided with resources** for continuing SSRH education throughout the lifespan[1]



Content from Infancy to Adulthood

Stage of Life	Recommended Topics to Discuss
Infancy to Toddlership	• Initiate bowel programs for health reasons and to support feelings of self-worth and dignity[69] • Encourage body exploration and normalize bladder accidents[70] • Discuss private vs public appropriateness[61, 70, 71] • Discuss body parts with correct terminology[70] • Speak directly about abuse and create a communication signal for the child to tell the parent(s) if something has happened[70]
Childhood	• Discuss hygiene, body parts, physical differences, privacy[1, 53, 70] • Explain consent[35] • Discuss exual expression, contraceptive strategies, responsibilities of sexual behaviour[1] • Explain how to report sexual exploitation[70, 71] • Discuss how masturbation can be pleasurable but should be done privately[70] • Emphasize who should not be seeing or touching body parts[71]

Content from Pre-Teen to Adolesence

Stage of Life	Recommended Topics to Discuss
Pre-Teen	• Discuss more formal SSRH education; menses, erections, reproduction, puberty[53, 69] • Educate about the benefits of abstinence from sexual activity, possibility of unwanted pregnancy, STIs[69, 70] • Discuss family planning options such as freezing sperm or eggs prior to any treatments that could damage reproductive organs[36] • Discuss menstruation ahead of time to prepare the child and help distinguish bleeding caused by injury from menstrual bleeding[61] • Provide simple and accurate information about sexuality that becomes mores specific as the child ages[71]
Adolescence	• Discuss contraception and safe sex[1, 53, 71] • Explain how to reduce the risk of STIs; barrier protection, other methods of contraception[1, 47, 53, 70] • Discuss how sex should be safe and pleasurable for both partners[69] • Discuss consent[62] • Discuss sexual abuse in more detail[62] • Explain sexual orientation[1,71] • Discuss how decrease pain with sexual intercourse[36]

63% of youth with disabilities would like to discuss sexual and reproductive health with their healthcare providers, and 100% of those people would discuss sexual health if the healthcare provider started the conversation[29].

Role of Healthcare
Professionals

MENSTRUATION MANAGEMENT

- Behavioural and hormonal approaches
- Explore possibilities of menstrual suppression

MEDICATION MANAGEMENT

- Screening and counselling clients to manage prescribed medication
- Provide birth control options and disclose associated risks
- Discuss contraception and pregnancy
- Manage medication side effects
- Include parents and partners in conversations

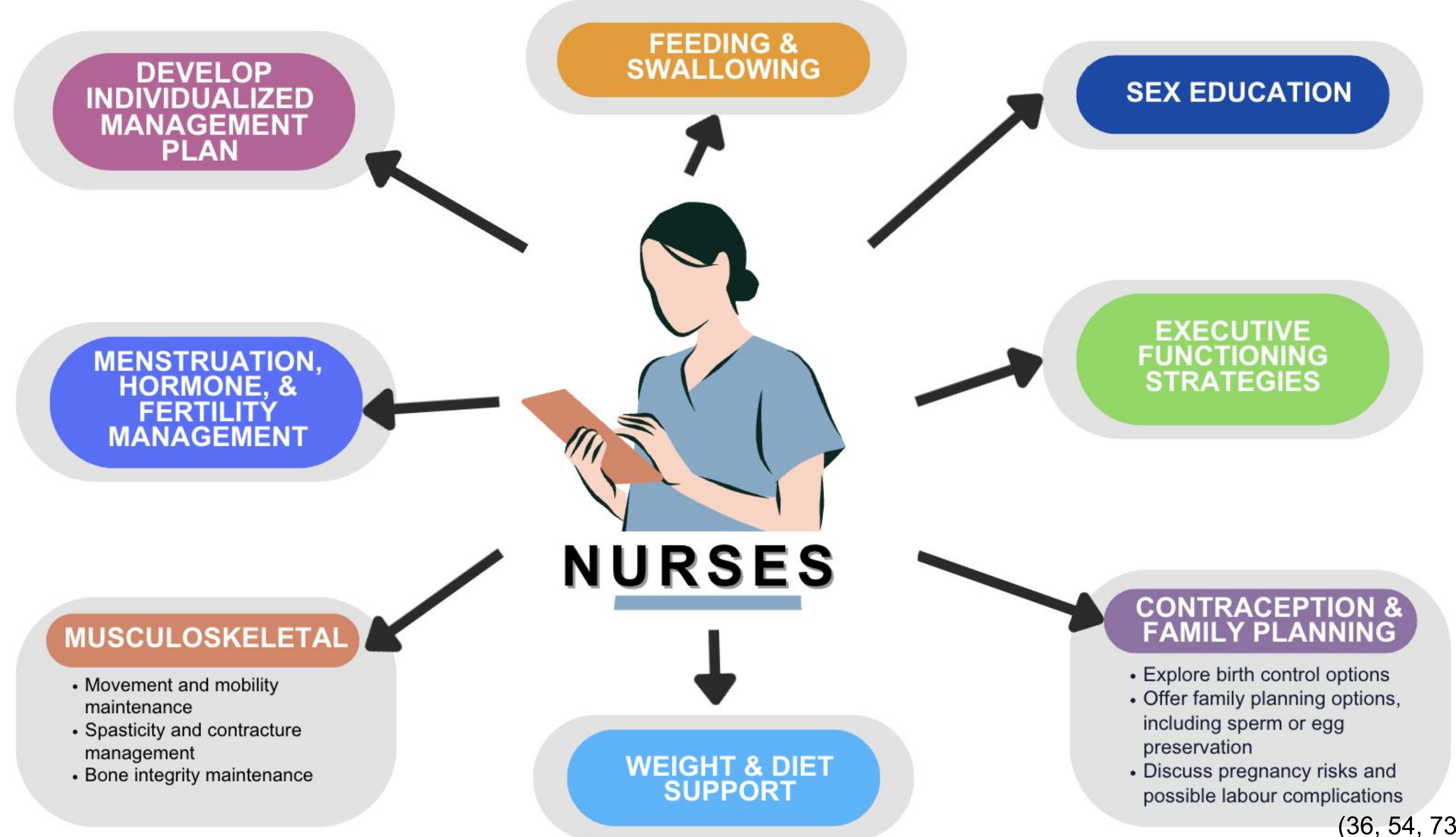
STD/STI PREVENTION

- STI testing using urine or vaginal swabs
- Educate about safe sex
- Latex-free options
- Vaccinate against HPV
- Provide accommodations for physical exams

SEXUAL RESPONSE

- Explore alternative routes to pleasure and satisfaction

(1, 47, 54, 61, 62, 72, 73)


DEVELOP INDIVIDUALIZED MANAGEMENT PLAN
FEEDING & SWALLOWING
SEX EDUCATION
MENSTRUATION, HORMONE, & FERTILITY MANAGEMENT
EXECUTIVE FUNCTIONING STRATEGIES
NURSES
MUSCULOSKELETAL
• Movement and mobility maintenance
• Spasticity and contracture management
• Bone integrity maintenance
WEIGHT & DIET SUPPORT
CONTRACEPTION & FAMILY PLANNING
• Explore birth control options
• Offer family planning options, including sperm or egg preservation
• Discuss pregnancy risks and possible labour complications
(36, 54, 73)

DEVELOP INDIVIDUALIZED MANAGEMENT PLAN

PAIN MANAGEMENT

SEX EDUCATION

NAVIGATE SEXUAL AROUSAL & RESPONSE

ASSESS ABILITIES

- Miller's criteria for the assessment of sexual potential

OCCUPATIONAL THERAPISTS

SUPPORT RESUMPTION OF PARTNERED SEXUAL ACTIVITIES

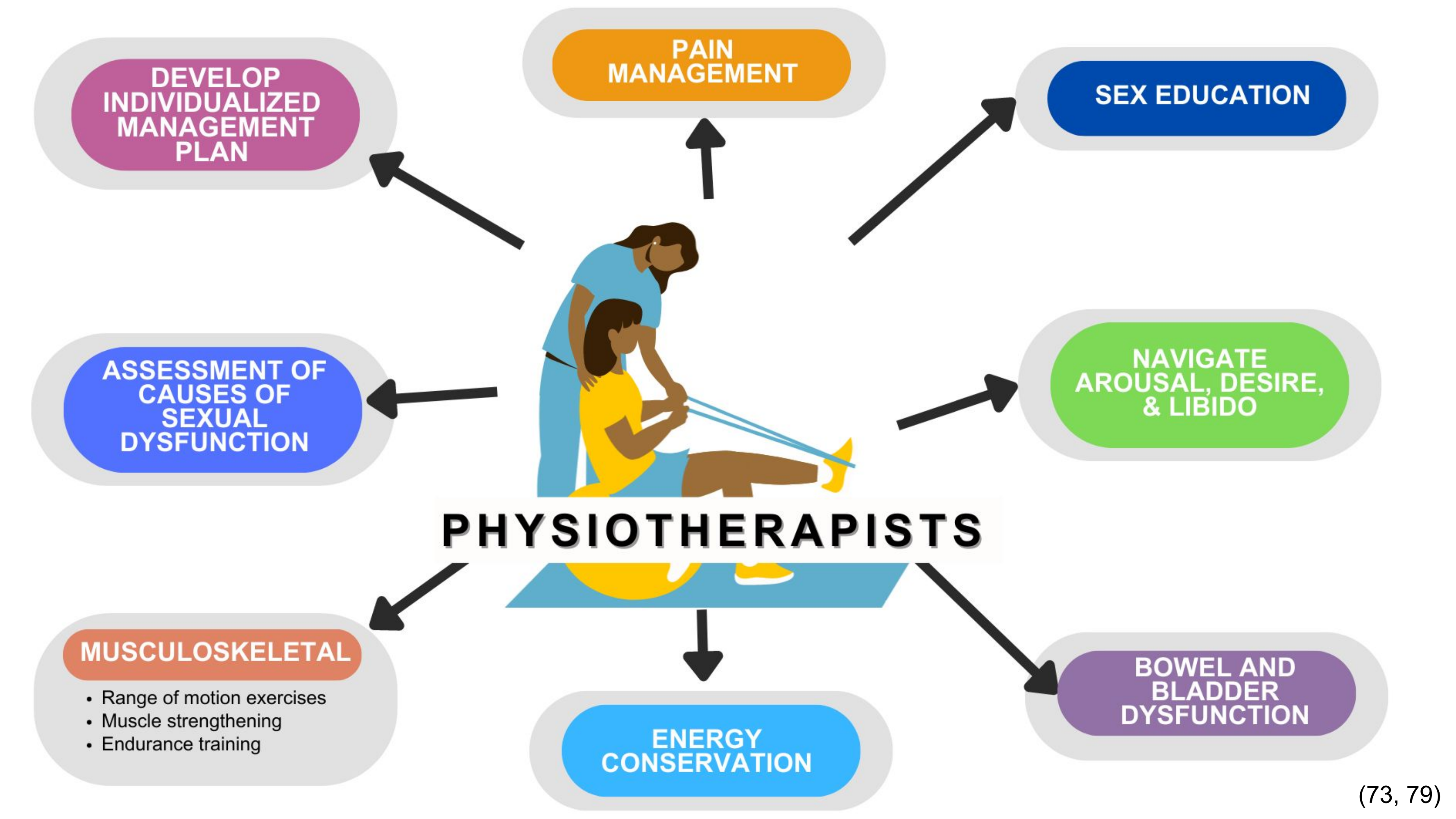
MUSCULOSKELETAL

- Range of motion exercises
- Muscle strengthening
- Endurance training

ENERGY CONSERVATION

MANAGE MENSTRUATION

(51, 68, 73-78)


PAIN MANAGEMENT
DEVELOP INDIVIDUALIZED MANAGEMENT PLAN
SEX EDUCATION
ASSESSMENT OF CAUSES OF SEXUAL DYSFUNCTION
NAVIGATE AROUSAL, DESIRE, & LIBIDO
PHYSIOTHERAPISTS
MUSCULOSKELETAL
• Range of motion exercises
• Muscle strengthening
• Endurance training
ENERGY CONSERVATION
BOWEL AND BLADDER DYSFUNCTION
(73, 79)

Roles

COMPARISON CHART I

TASK	DOCTOR	NURSE	OT	PT
Sex Education	✓	✓	✓	✓
Menstruation Management	✓	✓	✓	
Fatigue & Pain			✓	✓
Contraception & Fertility	✓	✓		
Medication Management	✓	✓		
Musculoskeletal Interventions		✓	✓	✓

(1, 36, 47, 51, 54, 61, 62, 68, 72-79)

Roles

COMPARISON CHART II

TASK	DOCTOR	NURSE	OT	PT
STI / STD Testing	✓			
Sexual Assault Screening & Consent	✓	✓	✓	✓
Positioning & Adaptive Devices			✓	✓
Bladder & Bowel Dysfunction				✓
Sexual Arousal & Response	✓	✓	✓	
Weight & Diet		✓		

(1, 36, 47, 51, 54, 61, 62, 68, 72-79)

Roles

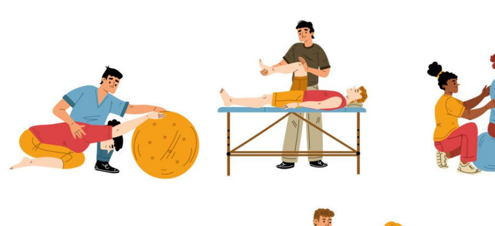
COMPARISON CHART I

TASK	DOCTOR	NURSE	OT	PT
Sex Education	✓	✓	✓	✓
Menstruation Management	✓	✓	✓	
Fatigue & Pain			✓	✓
Contraception & Fertility	✓	✓		
Medication Management	✓	✓		
Musculoskeletal Interventions		✓	✓	✓

Roles

COMPARISON CHART II

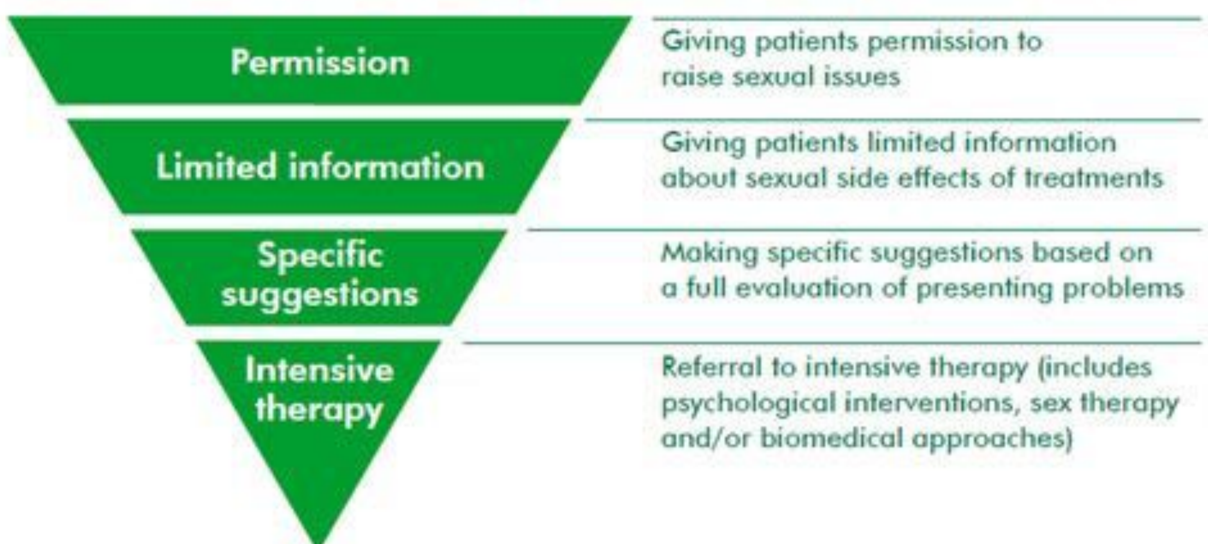
TASK	DOCTOR	NURSE	OT	PT
STI / STD Testing	✓			
Sexual Assault Screening & Consent	✓	✓	✓	✓
Positioning & Adaptive Devices			✓	✓
Bladder & Bowel Dysfunction				✓
Sexual Arousal & Response	✓	✓	✓	
Weight & Diet		✓		



(1, 36, 47, 51, 54, 61, 62, 68, 72-79)

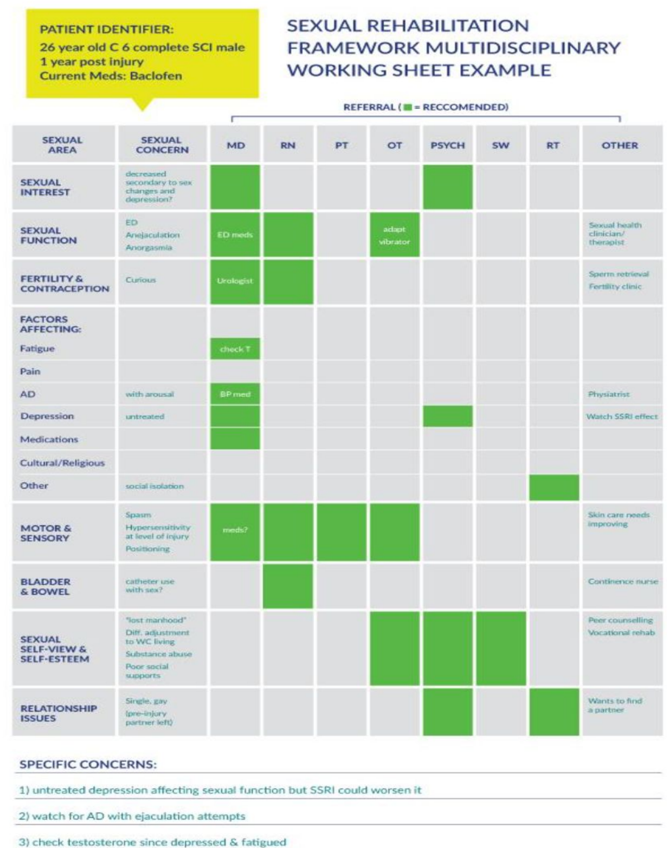
Clinical Tools
& Frameworks

PLISSIT Model



Retrieved from https://www.psychiatryadvisor.com/

Sexual Rehabilitation Framework Multidisciplinary Worksheet



PATIENT IDENTIFIER:
26 year old C 6 complete SCI male
1 year post injury
Current Meds: Baclofen

SEXUAL REHABILITATION FRAMEWORK MULTIDISCIPLINARY WORKING SHEET EXAMPLE

		REFERRAL (■ = RECCOMENDED)							
SEXUAL AREA	SEXUAL CONCERN	MD	RN	PT	OT	PSYCH	SW	RT	OTHER
SEXUAL INTEREST	decreased secondary to sex changes and depression?	■				■			
SEXUAL FUNCTION	ED Anejaculation Anorgasmia	■ ED meds	■		■ adapt vibrator				Sexual health clinician/ therapist
FERTILITY & CONTRACEPTION	Curious	■ Urologist	■						Sperm retrieval Fertility clinic
FACTORS AFFECTING:									
Fatigue		■ check T							
Pain									
AD	with arousal	■ BP med							Physiatrist
Depression	untreated	■				■			Watch SSRI effect
Medications		■							
Cultural/Religious									
Other	social isolation							■	
MOTOR & SENSORY	Spasm Hypersensitivity at level of injury Positioning	■ meds?	■	■	■				Skin care needs improving
BLADDER & BOWEL	catheter use with sex?		■						Continence nurse
SEXUAL SELF-VIEW & SELF-ESTEEM	"lost manhood" Diff. adjustment to WC living Substance abuse Poor social supports				■	■	■		Peer counselling Vocational rehab
RELATIONSHIP ISSUES	Single, gay (pre-injury partner left)					■		■	Wants to find a partner

SPECIFIC CONCERNS:

1) untreated depression affecting sexual function but SSRI could worsen it

2) watch for AD with ejaculation attempts

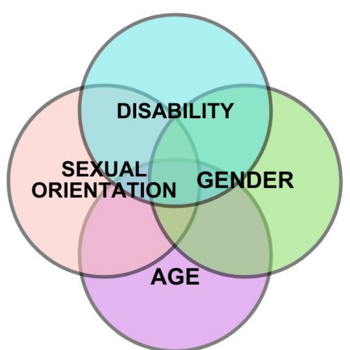
3) check testosterone since depressed & fatigued

Retrieved from scireproject.com

Canadian Occupational Performance Measure (COPM)

The COPM focuses on understanding an individual's perceived performance and satisfaction with daily activities that are meaningful to them[77]

1. Initial Interview
2. Rating and Scoring
3. Goal setting
4. Intervention and Reassessment



2S/LGBTQIA+ Considerations

- People with disabilities, despite having similar sexual and reproductive needs, face barriers to sex education due to **asexuality myths** or being **hypersexualized**(86)
- **Heteronormativity** and **cisnormativity** can lead to discrimination resulting in the need for clients to hide their non-normative sexual identities(25)
- Non-heterosexual queer youth may face isolation and identity conflicts due to their differences from societal norms. Acts of **age-based discrimination** can invalidate their identities as mere "phases"(25)

Understanding the interplay of sexual orientation, gender, age, and disability status is crucial to address the complex oppressions experienced by this group and move towards inclusivity, accessible sexual education, and improved quality of life outcomes(25, 26)

1/3

of 2S/LGBTQIA+ people identify as having a disability

Fostering Safe and Inclusive Sex Education for 2S/LGBTQIA+ and Disabled Clients

1 Queer-Inclusive Pedagogy

- Respect for individual sexual and gender identifications
- Avoid heteronormative educational approaches
- Use gender-neutral language

2 Increase Representation

- Invite diverse queer-disabled lived experiences, mentors, and professionals
- Avoid reinforcing ableism, heteronormativity, and binary gender identities

3 Comprehensive Approach

- Implement disability justice politics
- Embrace all expressions of pleasure as an opportunity to rewrite the stigma attached to them

4 Accessibility

- Accommodate specific needs during the design and delivery of the information

(36, 47, 50, 31, 83, 84, 85, 86)

Cultural and Religious Considerations

It is **crucial** to consider cultural and religious diversity within the population

- Influence on beliefs around potentially sensitive topics (e.g. menstruation, contraception, abortion, abstinence and premarital sex, teenaged pregnancy and masturbation)[30]

Strategies:

- **Education:** Professionals should familiarize themselves with the cultural and religious values present in the educational setting[30]
- **Collaboration/Open Communication:** Parents and/or guardians should be made aware of all subject matter and materials present prior to delivery[81]
- **Care**: exercise caution to avoid using harmful language or making assumptions about a cultural or religious group. Instead, promote open dialogue and experience sharing[30]

Physical Impairments

Mobility Limitations[29]

- Individuals may benefit from instruction and education **regarding specialized adaptive devices**

Spasticity[68]

- Individuals **may benefit from warm water** (for ex., a bath or shower) or massage to help relax the muscles before engaging in certain activity.
- **Education surrounding positioning and the use of wedges and pillows** is recommended

Physical Impairments

Fatigue and Energy Conservation[79]

- Clients should **discuss different positions that can help preserve energy** during sexual activity with their healthcare provider
- Clinicians may recommend **planning around when the client has more energy**, taking naps or resting as needed, and communicating energy levels to their partner(s)

Sensory Challenges[79]

- Some neurological conditions **may make it difficult to achieve arousal**
- Two types of arousal pathways: reflex pathway (response to physical touch), and psychogenic pathway (sexual thoughts, sights, smells, sounds)
- Clients can be **advised to explore what pathways help lead them to arousal**

Physical Impairments - Specific Conditions

Seizure[54]

- Anti-epileptic **drugs can influence intellectual and emotional reactions** which may mimic the unpredictable behaviors seen during puberty
- A detailed seizure history and thorough medication review must be taken to be able to easily identify the cause of any personality changes

Spina Bifida[1]

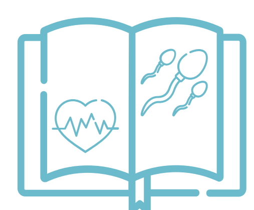
- Access to **pre-pregnancy counselling is vital** so the individual is informed of their elevated risk of bearing a child with neural tube defects and experiencing pregnancy complication

Cancer[59]

- Adolescents receiving chemotherapy should be reminded that the **treatment does not act as a form of birth control**, and that contraception is still required for safe sexual intercourse

Hearing Impairments

- Demonstrate an **appreciation and knowledge of deafness**, Deaf culture, and the particular challenges involved in teaching deaf and hearing impaired children[19]
- Use of materials such as **visual images**[18, 91]**, graphics**[18]**, drawings**[18]**, anatomical models**[18]**, and videos**[18, 59] are helpful in transferring sexual information.
- **Videos should be closed captioned**, reviewed to ensure the content is developmentally appropriate, and would ideally include deaf characters[18]
- To support the deaf and hearing impaired community, healthcare providers should try to **use materials and products that were created or designed by individuals from the community**[91]



Hearing Impairments

- Any **written resources should be accessible to the majority of reading levels**[18]
  - Information should be presented using **specific, simple, and clear language and repetition** over multiple occasions helps with integration and understanding[59]
- Sexual education **should be delivered in ASL**[91]
  - Providers can learn vocabulary from a deaf or hearing impaired individual to build a foundation of trust with their client and to ensure information is being transmitted correctly[18]
  - This can include learning slang ASL signs for terms relating to sexuality[18]

Hearing Impairments

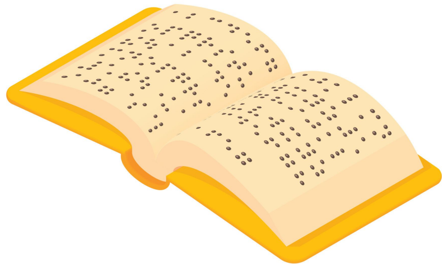
- Within Deaf culture, **storytelling holds significant importance**, making personal disclosure a valuable approach to conveying sexuality information[18]
- Appropriate **involvement from the Deaf community** is essential[19, 91]
  - Adults who are Deaf or hearing impaired can **share their knowledge** with clients and can also **serve as role models** with whom clients can identify throughout their early years.
  - These role models should be of **various genders, and racial and ethnic backgrounds**

Visual Impairments

- Blind or visually impaired students should be in the same classroom as their sighted peers so that everyone receives the same information[21, 84]
- Identify and implement **accommodations** prior to classroom delivery[95]
- Visually impaired students **should not be singled out** or be expected to manipulated tactile models or tangible objects unless other students are as well[95]
- Practice **pre-teaching**, for example, going over sensitive or complex topics or anatomical models before class[95]
    - For anatomical models/objects, presence of at least 2 adults is recommended

Visual Impairments

- Educators should obtain worksheet or powerpoint transcriptions in **Braille**, **e-texts** and/or **large print**[94]
- Students with low vision may benefit from images with **greater contrast in colour**[94]
- Educational videos should be accompanied by **audio descriptions**[94]
- Implement the use of **tactile (anatomical) models, tangible objects** and **raised line drawings**[94, 95]
- **Parents should be made aware** of the nature of these models and objects, and it is recommended that written parental permission be obtained before delivery of sex education[95]



Visual Impairments

- **Sexual Abuse**
  - Practice the **"Swedish Apron"** technique to identify private areas[95]
    - Involves the youth touching the shoulder opposite to their hand by crossing the arms over the chest, and moving their hands down to the pelvic area and onto the buttocks area . The body parts covered by the metaphorical apron are meant to symbolize areas that are personal and thus "off limits" to others[95]
  - Providing **verbal consent** should be emphasized; this can be done through the use of role-playing activities[94]
  - Educators should ensure accessibility of information pertaining to **community resources** such as helplines; for instance, reading the helpline number aloud instead of merely displaying it visually[94]

Visual Impairments

- **Menstruation**
  - **When anticipating a period**, use a calendar or learn to recognize PMS symptoms[74]
  - Use a regular **schedule** for changing pads or tampons
  - Pads may be easier to learn to use and to identify if dropped[74]
  - Employ **tactile strategies** for: using a pad or tampon, identifying menstrual hygiene products at the store, recognizing leaks[74]
  - **Ask for assistance** from trusted source for: shopping, detecting leaks[74]
  - Familiarize yourself with **smartphone apps** such as “Be My Eyes” or “Roomate” for shopping and navigating public restrooms, respectively[74]
  - OTs can: facilitate small group discussions whereby people who menstruate share strategies, explore layout of public restrooms, explore alternative menstrual hygiene products[74]

7 8 9 ÷
IV. Discussion

Discussion

General summary of findings:

- Educational material should be age-appropriate and culturally sensitive
- Parent-clinician collaboration is encouraged
- Educators and clinicians are advised to include disabled adolescents with their non-disabled peers
- Several methods for teaching sex education were commonly identified: role playing, interactive games, peer support workshops

Gaps & Limitations

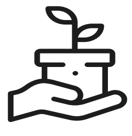
Gaps in the Literature

- **5** out of **41** of the peer-reviewed articles were written outside of North America and Europe
- Limited information found on **learning non-verbal communication signs** for youth with visual impairments

Study Limitations

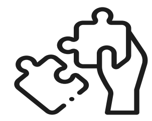
- Narrow target population **(14-21)**
- Search criteria excluded intellectual & mental health conditions, such as ASD
- Search was limited to available literature published in English

Implications for Further Research & Programs



Resources for Practice

Findings provide information on current successful strategies, which HCPs and educators may integrate into their practice



Awareness & Future Research

The research hopes to invite discussion for further awareness surrounding the topic of sexuality and sexual and reproductive health for youth with physical impairments. This review may also pave the way for further research on this topic.

V. Conclusion

Conclusion

This scoping review strives to encourage further awareness, discussion, and research in the realm of sexuality and sexual and reproductive health for youth with physical, hearing, and visual impairments. The hope is that this review serves as a stepping stone toward comprehensive, inclusive, and empowering sexual education programs that recognize and meet the unique needs of this diverse population.

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