

The Brain, The Body & You – Learning Series

WORKSHOP 2: Continence Care and the Stroke Survivor

- Powerpoint (see file)
- Workshop Schedule
- Reference Notes
- Continence Assessment
- Case Studies
- Resource List
- Evaluation Form

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WORKSHOP SCHEDULE

(4 hours)

- 10 minutes Welcome
- Introduction of facilitators
 - Review of handout package
 - Have participants introduce themselves
- 20 minutes Review signs and symptoms of stroke and how to react to them
- ▶ VCR/DVD – Video #1 Recognize and React to the signs & symptoms of stroke for health care providers – use one of the vignettes
- Review Types of stroke
Review risk factors for stroke
(see detailed notes in workshop #1)
- 30 minutes Group input – common continence issues they see with their stroke clients
- ▶ record on flipchart
- Review normal bladder function
Review effects of stroke on bladder function
- 1 hour Age-related factors that affect continence
- ▶ have participants do questionnaire
- Discuss - Urge Incontinence
 - Retention
- 20 minutes BREAK
- 55 minutes Functional incontinence
Stress incontinence
Discussion of strategies for assisting the stroke survivor and family
Complications of continence issues – urinary tract infection
- 30 minutes Discussion of (A) Case studies
 (B) Issues raised by class

15 minutes Summation & evaluation

REFERENCE NOTES

Introduction

“Continence Management is not just changing the product.”

Objectives for this Workshop

At the completion of this workshop, the learner will:

- define a stroke
- know the risk factors for stroke
- recognize the signs and symptoms of a stroke and how to react to them
- recall normal bladder function
- identify common types of incontinence presented by the stroke survivor
- identify age-related changes to bladder function
- explore nursing interventions around bladder re-training
- discuss approaches for the stroke survivor for whom continence continues is an issue
- understand the interprofessional approach to post-stroke care

Urinary Incontinence (UI)

- approximately 50% of stroke survivors have **incontinence** (or continence issues) during their acute admission
- this decreases by 20% by 6 months post-stroke
- 1 in 4 women experience UI
- 1 in 10 men experience UI
- UI is an embarrassing condition – whether you are a stroke survivor or not
- any change in bladder function is a distressing, disabling alteration in your life
- it affects your quality of life – limits your travel, limits your social life (despite TV ads that extol the virtues of the “incontinence underwear” as safe to go to the theatre, and one woman is getting married in hers)
- anyone – stroke survivor or not – is majorly impacted by the loss of control
- for the stroke survivors, regaining “bladder control” or continence may be a major issue in determining if they can “go home”
- for the stroke survivor, the ability to “regain continence, or improve bladder function, depends on:
 1. the size and location of brain damage from the stroke
 2. the degree of physical limitation (how quickly can one get to the washroom)
 3. the presence of other health problems – i.e., diabetes or renal failure

Normal Bladder Function

- the bladder is also known as the urinary vesicle and is a freely movable organ
- the bladder is behind the pelvic bone in men
- the bladder is in front of the vagina in women
- 2 parts: fundus or body
 - neck or posterior urethra
 - in women, the urethra is 2.5-3.5 cm
 - in men, the urethra is 16.5-18.5 cm
- ureters – tubes in the pelvis between the bladder and kidneys
- there are no valves in urethral openings but as pressure in bladder rises, the ends of the ureters are compressed against the bladder wall to prevent backflow of urine

Bladder Structure

there are 4 layers in the bladder:

- 1st. outer serosal layer – covers the upper surface and is continuous with the peritoneum
- 2nd. network of smooth muscle fibers called the **detrusor muscle**
- 3rd. a submucosal layer of loose connective tissue – unfolds as bladder fills
- 4th. inner mucosal lining of transitional epithelium

Detrusor Muscle (DM)

- the muscle of urination
- when the DM contracts in response to a message via the spinal reflex arc (through pons / basal ganglia to the frontal lobes), urine is expelled from the bladder
- when the DM contracts, the muscle fibers in the bladder neck (internal sphincter) are pulled open and voiding occurs
- the **external sphincter** muscle is a circular muscle composed of striated fibers which surround the urethra distal to the bladder base – the external sphincter operates as a reserve mechanism to stop voiding “mid-stream”
- skeletal muscles of pelvic floor also play a role
- the “urge to void” (or sensation of fullness) occurs when the bladder is distended 150-300 ml
- bladder emptying occurs from 3 to 6 times
- so, as you can see, normal bladder function is a highly coordinated activity
- we need to have:
 1. neurologic function: get the messages to and from the brain
 2. urologic function: are the kidneys producing urine, and is it stored in the bladder
 3. psychological function: do we have the necessary cognition perception, i.e., awareness to interpret the messages
 4. mobility – can the person get to and use the washroom

Age-Related Changes

- also have to consider age-related changes:
 - (a) thinning of the bladder wall
 - leads to the bladder emptying at smaller volumes, resulting in more frequent, less controlled voiding
 - (b) decreased bladder capacity
 - normal adult’s bladder can hold 500-600 ml
 - an aging bladder can hold 250-300 ml due to muscular changes and PFR changes
 - (c) inability to completely empty one’s bladder
 - with a decrease in muscle tone, the bladder doesn’t empty completely
 - the bladder becomes stretched, and urinary retention occurs
- ▶ talk about positioning, i.e., sitting upright on a commode, or with head of bed elevated and a pillow under the knees for the use of the bedpan
- ▶ go to Powerpoint for types of incontinence

Definition of Incontinence

The involuntary loss of urine significant enough in amount and frequency to be a health **or** social problem.

Types of Incontinence

1. Urge Incontinence

- urine is lost involuntarily
- one cannot delay voiding once the urge is felt – long enough to reach the toilet
- usually associated with frequent urination during the day and night
- may also be termed “overactive bladder”
- occurs in about 1 of 3 post-stroke folks

Contributing Factors:

- neurological (post-stroke or ABI)
- caffeine use
- person is constipated (bladder pressure from bowel)
- atrophic changes to bladder (aging)

- urinary tract infection (UTI)
- medication – e.g., diuretics

2. Retention (with or without Overflow)

- characterized by continuous or intermittent dribbling of urine
- i.e., client voids 100 ml, or just dribbles
- neurogenic – often seen post-stroke (i.e., because of ischemic areas in the brain)
- other association – urethral strictures – such as BPH in the male
- medication – anti-cholinergics, antispasmodic medication
- client with diabetes – has peripheral neuropathies and this also affects bladder function

3. Functional Incontinence

- urinary leakage
- client is unwilling or **unable** to toilet appropriately
- why?
 - (a) cognitive impairments
 - R/T brain damage from stroke – not aware of need to void, have forgotten or have had the previously learned behaviour erased from their memory bank
 - (b) physical impairments
 - client’s mobility: can client “sit” on commode or toilet
 - location and design of washroom
 - (c) psychological factors
 - use of bedpan / urinal / commode
 - (d) environmental barriers
 - location and size/design of washroom
 - clothing – easily removed?
 - (e) age-related changes

4. Stress Incontinence

- urine loss occurs involuntarily with a sudden increase in intra-abdominal pressure (e.g., sneezing, coughing, exercise)
- more common in women, but men after prostate surgery
- usually associated with urethral sphincter weakness

► Have discussed the 4 types of incontinence, all of which can occur post-stroke or without a stroke. So, to help the stroke survivor, determine for yourself if the incontinence is due to the stroke. What would you do?

► (go to the flipchart) Thinking about what we have talked about, how would you help the Stroke Survivor?

Take a Continence / Incontinence History

STEP I: Helping the stroke survivor complete an incontinence history

(▶ on flipchart & then on Powerpoint)

- onset, duration
- pre-stroke bladder function
- intake amounts and time
- medications
- psychosocial factors
- product use

STEP II: Helping the stroke survivor develop a strategy based on:

- age
- cognitive awareness
- mobility issues
- swallowing and nutrition issues
- voiding pattern

Helping the Survivor

1. Bladder Re-training Strategies

Step 1. The individual uses a mandatory voiding schedule

Step 2. Gradually, the intervals between voids are increased

Step 3. The individual is taught to void according to schedule and to resist the urge to attempt to void in response to sensation. Use relaxation or distraction techniques.

Step 4. The interval between voids is periodically increased by 15 minutes with a goal of the interval being every 3 to 4 hours.

2. Catheters and External Devices

- ▶ discuss positives and negatives of:
 - catheters – in-dwelling, intermittent (in/out)
 - condom drainage
 - show each device & discuss use and care of

3. Prompted Voiding

- Monitoring
- Prompting
 - time to go to the washroom vs. do you have to go
 - are you dry vs. are you wet
- Praise – for dryness

- Anticholinergic meds (e.g., Ditropan) – decreased detrusor contractions and thus increased bladder capacity

Other Interventions

- Identify and assess barriers to being able to reach the toilet / commode
- Look at intake:
 - caffeine intake – caffeine acts as a diuretic
 - decreased fluids after 6 p.m.
 - limit or decrease alcohol intake
 - encourage fluids that acidify urine (cranberry juice)
- Kegels – strengthening of pelvic floor
- Interdisciplinary
 - OT re: adaptive clothing or ADL activities
 - Physio re: mobility
 - MD's re: meds
- Incontinence products (▶ “show and tell” – have numerous products available)
- Best use – which product suits stroke survivor (▶ discussion with the group)

Bed Mobility

- Bridging – shifting hips, shoulders
- Turning
- Use of urinals, bedpans, commodes

Urinary Tract Infection (UTI)

early recognition and treatment of:

- changes in voiding pattern – e.g., client going more often
- changes in behaviour
- dysuria
- cloudy, strong smelling urine

Reducing Risks of UTI's

- Ensure adequate fluid intake to 6 to 8 glasses a day
- Encourage an increase in fluids when the survivor experiences burning during urination
- Restrict caffeine intake to 2 cups a day or less
- If excessive night voiding is a problem, adjust the timing of the fluid intake (not the amount per day) so more is taken earlier in the day and only 1 cup is taken after 7 p.m.
- Report any change in bladder function to allow for further investigation

- ▶ use situations here or ask audience for some “continence challenge examples” from their workplace

CONTINENCE ASSESSMENT

How frequently do you go to the toilet? Day _____

Evening _____

Night _____

Do you leak urine with Physical Stress? Yes No
(e.g., coughing, sneezing)

Do you have to hurry to the washroom when you feel the urge to void?

Yes No Occasionally

Do you leak urine on your way to the washroom?

Yes No Occasionally

On average, how long can you hold on after feeling the first urge to void?

Time (minutes) _____

Do you feel that you completely empty your bladder after voiding?

Yes No

What is your fluid intake on an average day?

Morning _____

Afternoon _____

Evening _____

Overnight _____

What types of fluids do you drink in a day? Specify types if you can.

If you were assessing a client, you would also consider the following:

Medical History:

Medications:

Environmental Barriers:

Functional Assessment:

FOR EACH CASE STUDY:

Assign participants to the case studies in groups of 3 or 4.

One person should play the role of the client, and the others would assume the role of caregivers.

They should perform a continence assessment on the client and develop a continence care plan.

Case Study 1

Anna, a 75 year old was playing the piano one afternoon and she noticed the last 2 fingers on her left hand would not depress the keys. She thought nothing of it, closed the piano and stretched out on the couch for a nap. Her son came home from work at 8 p.m. to find his Mom still on the couch. He tried to awaken her, she opened her eyes but was unable to speak. It was determined at arrival to hospital she had had a Right-sided Stroke (CVA).

After 3 weeks in hospital, she is transferred to the Rehabilitation Unit. The 2 week followup Interdisciplinary Conference report gives you the following information.

- she is a one person moderate assist standing pivot transfer – frequent cuing is required
- she has severe Left side neglect & some Left side visual impairment
- she has some memory impairment for recent events
- she is continent of bowels, continent of bladder during the day but not overnight

Case Study 2

Frank has had a stroke that has left him with Aphasia and right sided hemiplegia. He does understand all conversation, using yes & no reliably. He uses a wheelchair for mobility & is a one person standing pivot transfer. He has experienced some urinary continence issues recently.

Frank has been a resident in your Long-Term Care facility for 2 years. He is less eager to participate in his care, is taking less interest in events that are happening in the home & at times refuses to answer questions.

Case Study 3

Sara is a homemaker, age 62. She lives with her spouse in a rural area in a 2 storey house. She has 2 sons who live nearby. She got up to check out a noise in the kitchen at 0214 hours. Her left leg gave out from under her & she fell to the floor. Her spouse, a sound sleeper, did not hear her. He found her lying on the kitchen floor in the a.m. She had left hemiplegia, right facial drooping & a fractured right wrist.

Her CT scan at the hospital showed a Right Middle Cerebral Ischemic Infarct. She is now in the Rehabilitation Unit & discharge planning is underway.

The Interdisciplinary report tells you the following:

- Sara is a 2 person standing pivot transfer with moderate assist
- Sara uses a wheelchair for ambulation
- Sara has a cast on her right wrist
- Sara has dysphagia, requiring minced diet with thickened fluids
- Sara is continent of bowel & bladder but does have urinary urgency
- Sara is emotionally labile

RESOURCE LIST

Heart and Stroke Foundation of Ontario

For more information or to order any of the following resources please visit the Heart and Stroke Foundation of Ontario website at <http://profed.heartandstroke.ca>

- Heart and Stroke Foundation of Ontario (2002) Tips and tools for everyday living: A guide for Stroke Caregivers. Heart and Stroke Foundation of Ontario: Toronto online at <http://profed.heartandstroke.ca>.
- Stroke Network of Southeastern Ontario (2006). Tips and tools for everyday living: A guide for stroke caregivers: “Putting it into practice” video series online at www.strokenetworkseo.ca
 - Video #1 Recognize and React to the Signs and Symptoms of Stroke
 - Used in all 5 workshops
 - Video #2 Communication
 - Used in workshop #5 Communication and Behaviour
 - Video #3 Meal Assistance & Hydration
 - Used in workshop #4 Nutrition, swallowing, feeding and hydration
 - Video #4 Cognitive, Perceptual & Behavioural Problems
 - Video #5 Mobility
 - Used in workshop #3 Mobility
- Risk Assessment: online at www.heartandstroke.ca/assess
- Ontario Best Practice Guidelines for Stroke care. Online at <http://profed.heartandstroke.ca/>
- Canadian Best Practice Recommendation for Stroke Care: 2006 online at http://www.canadianstrokestrategy.ca/eng/resourcestools/best_practices.html
- Let’s Talk About Stroke and other patient education resources
 - Heart and Stroke Foundation of Ontario Health Information Resource Catalogue online at http://www.heartandstroke.on.ca/site/c.pyI3IeNWJwE/b.3829047/k.91D8/Health_Information_Resource_Catalogue.htm

Additional Resources

- Stroke Network of Southeastern Ontario: www.strokenetworkseo.ca
 - Visit this site for additional educational resources and popular resource links
- RNAO (2005). Best Practice Guideline: Stroke Assessment Across the Continuum of Care. Online at www.RNAO.org.

- Journal Article: Rosemarie King & Patrick Semik. (April 2006). Stroke Caregiving: Difficult Times, Resource Use and Needs During the First 2 Years. *Journal of Gerontological Nursing*, 32(4), 37-45. online at www.JOGNonline.com

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WORKSHOP 2: Contenance Care and the Stroke Survivor

Participant Evaluation Form

1. Using the following scale (1-9), please rate your level of knowledge / skill / experience **BEFORE** today’s workshop and **AS A RESULT OF** today’s workshop for each of the following statements.

NONE or MINIMAL Knowledge/Skill/Experience			SOME Knowledge/Skill/Experience			EXTENSIVE Knowledge/Skill/Experience		
1	2	3	4	5	6	7	8	9

Enter a number in the boxes below

How would you rate your:	BEFORE the Session	AS A RESULT OF the Session
a. Ability to recognize the possible 5 signs and symptoms of a sudden stroke		
b. Understanding of how to react to the sudden signs and symptoms of a sudden stroke		
c. Ability to identify risk factors for having a stroke		
d. ability to identify the factors that effect urinary continence in a stroke survivor		
e. understanding of the types of urinary incontinence		
f. knowledge of the roles and functions of the interprofessional team members		

2. Overall, to what extent did this workshop meet your expectations?

- _____ Did not meet
_____ To some extent
_____ To a great extent
_____ Exceeded my expectations

3. What did you find **most helpful** about today’s session, and why?

4. What did you find **least** helpful about today's session, and why?

5. How might this workshop be improved? General comments?

6. Do you have any topics / learning areas to suggest for future workshops?
