Self-Management of Urinary and Fecal Incontinence

Employing evidence-based strategies can help patients take better control.

OVERVIEW: Widely used by patients to control symptoms of chronic conditions such as diabetes, asthma, and arthritis, self-management can also help patients with urinary or fecal incontinence. The authors discuss the principles of self-management, the behaviors and skills self-managing patients need to acquire, and the nurse's role in reinforcing their use. They then describe strategies that can be incorporated within the framework of self-management to control urinary, fecal, or dual incontinence.

Keywords: fecal incontinence, incontinence, self-care, self-management, urinary incontinence

Both urinary and fecal incontinence can have distressing physical, emotional, and psychosocial consequences, including loss of skin integrity due to persistent wetness or irritation from feces, embarrassment brought on by soiled clothing or odor, and self-imposed social isolation. Nevertheless, only 15% to 20% of patients with urinary incontinence and 43% of those with fecal incontinence seek professional care for the problem.[1-3] Instead, they try to cope with the condition on their own, with variable success.[1, 4]

An alternative to patient trial and error is patient self-management, in which nurses and other health care professionals help patients identify problems, make decisions, set goals, take appropriate actions, and modify these actions as circumstances change.[5, 6] Self-management can increase patients' awareness of physical symptoms, empower patients to monitor the effects of behavioral changes aimed at improving chronic conditions, and help them feel better equipped to cope with an illness. While self-management is widely accepted as a means of coping with such chronic health conditions as diabetes, asthma, and arthritis, its value in treating urinary and fecal incontinence is not fully appreciated by many health care providers, who may be aware of the daily challenges faced by those with these conditions, but unsure of how to best support patients in effective self-management.

This article discusses the principles of self-management and their application in treating urinary and fecal incontinence. It describes the benefits realized by patients who apply self-management techniques to address incontinence and, through a case scenario, illustrates the nurse's role in imparting self-management skills to patients and reinforcing their use.

THE KEY ELEMENTS OF SELF-MANAGEMENT

Self-management is a critical component of self-care that requires the patient to monitor and manage symptoms as well as "functional, emotional, psychosocial, and physical" aspects of a chronic illness.[7] Self-management largely depends on the development of self-efficacy—that is, on patients' belief in their ability to perform specific self-care activities and produce

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a desired result.[7] Self-management interventions are most successful when patients participate in a collaborative process of care, and both patient and health care provider share responsibility for the outcomes.[5,6]

A qualitative metasynthesis of self-management literature identified the following three processes as essential to successful self-management of a chronic illness[8]:

- *focusing on illness needs* by learning about the illness and taking responsibility for meeting related health care needs
- *making use of resources* for health care, as well as psychological, spiritual, social, and environmental support
- *living with the chronic illness* by processing emotions, adjusting to the illness and the "new normal," making practical lifestyle modifications, and striving for personal growth and satisfaction

Echoing a similar theme, one theory of self-care in chronic illness emphasizes that it is crucial for patients to make evidence-based decisions and to thoroughly evaluate a variety of intervention options.[9]

In providing support for patients' self-management, it's important to consider the context of care and the power dynamics associated with the traditional, paternalistic, biomedical model of health care.[10,11] In other words, patients with a chronic disease are likely to develop some expertise in managing their illness, and when nurses encourage that, rather than viewing the patient as "noncompliant, questioning, or know it all," nurses support self-management.[11] However, it is important to bear in mind that numerous factors influence patients' self-management capacity, and patients cannot be expected to manage a chronic condition entirely on their own.

SELF-MANAGING INCONTINENCE

In the self-management of urinary or fecal incontinence, a precondition for success is the proper treatment of any underlying etiologies. Patients' self-management behaviors then operate as if in a feedback loop, with patients becoming more knowledgeable about their needs and the management strategies that work best for them.[12] In the context of incontinence, six specific self-management behaviors come into play:

- identifying the problem
- seeking evidence-based knowledge
- making decisions about resource use and interventions
- developing and implementing an action plan
- self-monitoring
- setting and attaining goals

Self-efficacy supports self-management behaviors, and each behavior, in turn, promotes self-efficacy (see Figure 1).

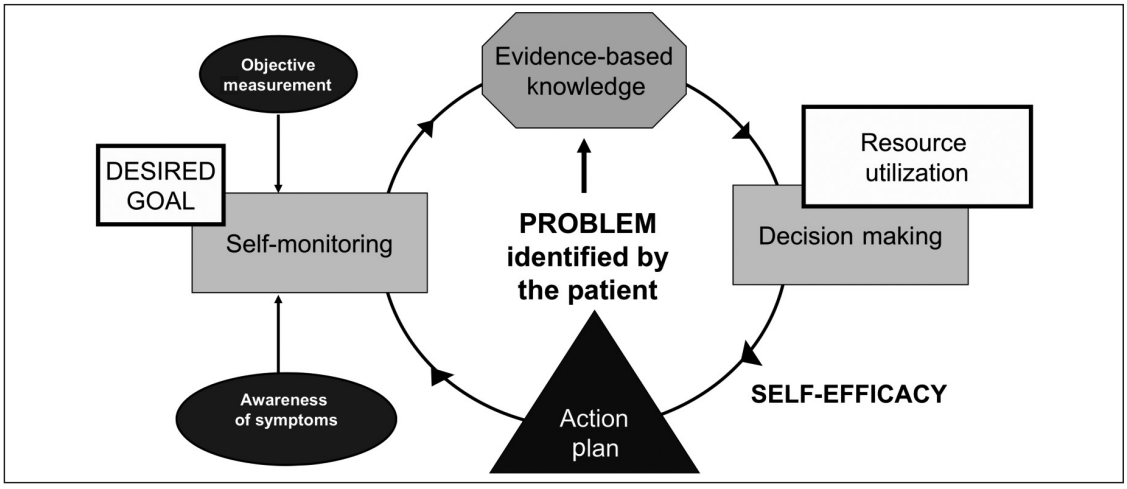

Figure 1. Self-management begins with a patient-identified problem. The self-management behaviors that address the problem operate as if in a feedback loop, with patients becoming increasingly knowledgeable about their needs and the strategies that work best for them as they come closer to attaining each goal. Self-efficacy supports self-management behaviors, and each behavior, in turn, promotes self-efficacy. Diagram developed by Cara Tannenbaum.

Identifying the problem. At the center of self-management is a patient-identified problem. Patients need to identify or, as is often the case with incontinence, acknowledge the health problem that needs resolution.

If nurses encourage patients to think about the problem in a way that is meaningful to them and linked to daily activities, it can help them set realistic goals. For example, patients with fecal incontinence might consider whether the scarcity of public restrooms and the fear of soiled clothing or associated odor have caused them to curtail activities outside of the home. This realization may suggest a goal, such as going out with friends when desired.

Seeking evidence-based knowledge. When patients learn about the range of interventions used to manage incontinence, discussing their use and effectiveness with a nurse can help patients make informed choices about how to manage their condition. Patients whose self-management techniques are evidence based are more likely to develop symptom control, which fosters self-efficacy and reinforces the continued practice of such techniques. Without a health care provider's support in learning about evidence-based interventions, patients may initiate harmful strategies such as severely limiting fluid intake, which may put them at risk for dehydration or urinary tract infection.[13]

Making decisions about resource use and interventions. Although the self-managing patient must ultimately be the one to decide to implement one evidence-based intervention over another, the nurse can inform the patient of appropriate available resources and explain clinical information and differences among treatment alternatives. Concerns about privacy and stigma may keep incontinent patients from asking for guidance from health care providers, but conveying a positive, supportive attitude, and practicing therapeutic communication skills—such as reflective listening, in which the nurse carefully listens to the patient and then paraphrases back what was said to confirm that the nurse understood it—may foster open communication and help patients overcome the embarrassment of acknowledging incontinence. In addition, sharing strategies found useful by others may reassure patients that their problem isn't unique to them.

Guidance is best offered after an in-depth discussion in which the nurse determines the patient's health literacy level, preferences, motivation, and available resources. Nurses should encourage patients to avail themselves of appropriate resources over the course of their chronic condition and to seek continuity of care when possible—making appointments with providers who are both knowledgeable in the area of incontinence and well acquainted with their particular concerns and circumstances. If self-management techniques fail or incontinence increases, patients should feel comfortable further investigating their symptoms with a familiar provider or continence resource service. As the patient gains confidence in self-monitoring and becomes more proficient at recognizing changes in symptoms, self-efficacy in decision making about resource use is likely to increase.

Developing and implementing an action plan. Once patients have decided on a particular intervention or behavioral change, they need to develop a

detailed, realistic action plan. For example, an action plan for practicing pelvic floor muscle exercises might require patients to decide when and where they will perform the exercises, for how long, and in which positions. Nurses should advise their patients to set a feasible timeline for action plan assessment. This may be two to three weeks after a dietary intervention or several months after starting a pelvic floor muscle exercise regimen. If the intervention is unsuccessful, it may be because the self-management behavior was not implemented effectively (for example, the patient may not have performed the exercises correctly or consistently). Evaluation would include assessing whether the patient was able to realistically carry out the action plan and whether any unanticipated events interfered with completion. Action plans may need to be revised to account for unexpected changes in health, work, or family matters, or to include alternative self-management techniques. So patients should be encouraged to review their action plan with the nurse periodically for necessary changes.

Self-monitoring. The ability to self-monitor is a critical component of all self-management strategies. Broadly defined, self-monitoring is an "awareness of symptoms or bodily sensations that is enhanced through periodic measurements, recordings, and observations."[14]

Before initiating self-management, patients must become attuned to their symptoms and bodily sensations. Through regular observation and measurement, patients learn to recognize whether a particular intervention or behavioral change produces a positive or negative outcome. For example, patients with urinary incontinence might record the quantity and types of fluids they consume, while tracking the number of times they void daily or the number of "accidents" they have in a week. Patients with fecal incontinence might keep a food diary and record associated fecal leakage so as to identify and limit problem foods in their diet.[15, 16]

Bodily sensations associated with incontinence include bladder or bowel fullness and urgency. Awareness of these sensations can trigger behaviors that address them, and if the behaviors are successful in reducing the associated signs and symptoms, the sensations are more easily recognized the next time they occur.

Setting and attaining goals. Setting realistic goals promotes successful self-management. When patients decide to implement an action plan, nurses can suggest that they set reasonable time frames within which to accomplish specific goals. Nurses can then use a goal-attainment instrument, such as the Self-Assessment Goal Achievement questionnaire, to help patients conduct an honest appraisal of outcomes.[17] If goals are met, patients continue with the self-management process; if goals aren't met, patients can either readjust their goals or review the action plan implementation with the nurse. When complete continence isn't possible, alternative goals might include reducing the frequency of incontinence and increasing confidence in self-management.[18] If a review of plan implementation reveals barriers, the patient may reformulate the plan or select an alternate treatment modality. Over the long term, symptoms may return or worsen despite adherence to a successful self-management plan. In such cases, the nurse can help the patient investigate possible reasons.

Self-efficacy, which supports self-management behaviors, increases with the development of each. As patients gain confidence in their ability to manage their symptoms, their ability to successfully manage their condition is likely to improve, further motivating them, guiding their actions, and sustaining behavioral changes.[19, 20] Nurses can use a self-efficacy scale to measure patients' confidence.[16, 21] For maximum success, self-efficacy measures should be behavior-specific and target each intervention separately.[22] For example, in determining the self-efficacy of a patient self-managing urinary incontinence, the nurse would measure the patient's confidence in holding urine when coughing, when sneezing, when laughing, and when nervous within a predetermined time frame after the introduction of each new intervention (see *Urinary Incontinence: A Composite Case*[21]).

Setting realistic goals promotes successful self-management.

The following strategies may be used to promote self-efficacy in patients[22]:

- Point out temporal associations between new skill acquisition and recent successes.
- Reinforce effort and persistence.
- Help identify early symptoms.
- Facilitate peer-modeling opportunities by organizing small discussion groups in which patients who have successfully self-managed incontinence share helpful strategies with others who have similar continence concerns.
- Help struggling patients identify or create meaningful goals.

DELIVERING SUPPORTIVE INTERVENTIONS

There are several means through which to support patients' self-management behaviors, including

- individualized face-to-face counseling.[23-25]
- small group sessions.[26]
- interactive, computer-based continence-promotion systems.[27, 28]
- informative, paper-based materials.[29, 30]

Urinary Incontinence: A Composite Case

The following case, based on the authors' experience, demonstrates the role of the nurse in promoting evidence-based self-management.

Donna Spencer, 69, has been experiencing urine leakage when she laughs or sneezes. She has the urge to urinate nearly every two hours during the day, and she doesn't always make it to the bathroom on time. To control the problem, she's tried restricting fluids, wearing incontinence pads, and practicing preventive toileting (every hour), but these strategies have been ineffective. She was so worried about her urinary incontinence that she canceled an upcoming trip involving air travel. Canceling the trip made her realize that she needed to seek help. She contacted a nurse specializing in continence care.

The nurse used the Geriatric Self-Efficacy Index for Urinary Incontinence (GSE-UI) to assess Ms. Spencer's confidence, or self-efficacy, in her ability to control her urinary symptoms. The GSE-UI asks patients to score their confidence in 12 areas from 0 to 10, where 0 represents no confidence and 10 represents extreme confidence. Ms. Spencer's initial results showed that she lacked confidence in her ability to hold urine (see Table 1).

Ms. Spencer's goal was to increase her confidence when traveling by learning to hold her urine for three to four hours at a time. The nurse supported Ms. Spencer's goal by recommending that she follow an evidence-based, 12-week, pelvic floor muscle training (PFMT) program. The nurse then taught Ms. Spencer how to identify her pelvic floor muscles by imagining that she is stopping the escape of gas from her rectum and moving the contraction forward. A pelvic floor muscle examination enabled Ms. Spencer to experience the sensations associated with contracting her pelvic floor, while allowing the nurse to determine the maximum duration of Ms. Spencer's muscle contractions, so as to appropriately tailor the first month's PFMT exercises (the number of slow and fast pelvic floor muscle contractions), which would be incrementally increased in the second month. Ms. Spencer determined that she could perform the PFMT exercises four times a day (before getting out of bed, at lunchtime, after dinner, and at bedtime) in two positions (lying down and sitting). When the nurse mentioned that coffee was both a diuretic (because of its caffeine content) and a bladder irritant (even when decaffeinated), Ms. Spencer agreed to gradually reduce her coffee intake, with the goal of eliminating it from her diet over a two-week period, replacing it with drinks that contain no caffeine, such as hot fruit infusions.

Table 1. Ms. Spencer's Self-Efficacy Scores[a]

Confidence to hold urine	Before the continence-promotion program	Six weeks into the program	After the program (at 12 weeks)
At home	8	8	9
When out	5	6	7
At night	8	8	8
For 20 minutes when feeling urgency	3	5	9
When coughing	5	5	7
When sneezing	5	5	7
When laughing	5	5	8
When nervous	5	6	7
Confidence about:			
Visiting places where restrooms may be hard to find	2	4	8
Going on social outings without worrying about urine loss	5	5	8
Not relying on continence pads at home	3	6	8
Not relying on continence pads when out	2	3	7
Total	56	66	93

[a] The scale is: 0 = not at all confident; 10 = extremely confident. Higher scores show better self-efficacy (maximum score = 120). A 14-point increase indicates a clinically meaningful improvement, whereas a five-point increase indicates any improvement.[21]

Ms. Spencer indicated that she also wanted to begin a bladder-training program. Two of her friends had said it had helped them. The nurse highlighted the need to complete a three-day bladder diary at the outset of training (to better understand bladder habits) and again three to four weeks later (to self-monitor progress). In working together to customize a bladder training program, the nurse and patient knew that the most important part was agreeing on a daytime "between-void" interval. It would likely require eight to 12 weeks for Ms. Spencer to achieve the goal of three to four hours between voids, so the nurse encouraged her to break that period down into two-week targets. For Ms. Spencer, this involved stopping her practice of preventive, hourly toilet use and waiting for 10 minutes when she felt the urge to urinate. The nurse taught her to complete a maximum of five fast pelvic floor muscle contractions as an urge deferment technique, followed by a distraction exercise.

After six weeks, Ms. Spencer returned for a second appointment. She reported improvement in her ability to attain her goals of holding her pelvic floor muscles at maximum contraction for six seconds, and completing an additional eight fast pelvic floor muscle contractions of one second in duration. She admitted, however, that she found it difficult to consistently complete four exercise cycles daily. She was continuing with bladder training and felt better able to defer urgency during the afternoon and evening, but less able to do so in the morning. She had taken it upon herself to complete a 24-hour bladder diary to get a better sense of her current voiding pattern; she found that two to three hours between voids was now the norm for her in the morning and afternoon. She had completely stopped drinking coffee and was enjoying a hot lemon drink instead. She felt motivated to continue with her efforts and believed her bladder condition was improving. The nurse encouraged her efforts and reviewed the previous and current self-efficacy scores with her to show her how much progress she'd made.

Ms. Spencer continued with her PFMT and bladder training programs. Three months later, her confidence to hold her urine had increased dramatically from 56 as measured on her first visit to 93 at her 12-week visit. Both patient and nurse were pleased with the results.

Supportive interventions may be delivered in clinics, community centers, or patients' homes.[31] Some research suggests that interactive and collaborative approaches are more successful in supporting self-management for incontinence than passive approaches such as providing standard, written information.

STRATEGIES FOR MANAGING URINARY INCONTINENCE

Research findings and clinical practice support the following interventions for managing urinary incontinence[32-36]:

- modifying the amount, type, and timing of fluid intake
- pelvic floor muscle, or Kegel, exercises
- rapid pelvic contraction exercises, often called the "Knack" maneuver
- bladder training, including modifying voiding intervals
- weight management
- constipation management

Modifying fluid intake. Men and women with urinary urgency or incontinence should be advised to avoid caffeinated beverages and not to drink more than their daily fluid requirements. Depending on weight, activity level, climate, and the presence of abnormal fluid loss or such conditions as congestive heart failure or kidney disease, fluid requirements are generally said to be 1,800 to 2,400 mL per day.[13, 37]

Pelvic floor muscle exercises are designed to strengthen the muscles surrounding the urethra and the external urethral sphincter in order to reduce or prevent urine leakage. The first step is to identify these muscles and to learn how to contract and relax them selectively (without increasing intra-abdominal pressure on the bladder or pelvic floor). The second step is to perform a daily exercise regimen aimed at improving the strength, coordination, and endurance of the muscles. Typically, such a regimen would continue for 12 weeks and would include three sets of a series of 10 sustained pelvic floor muscle contractions, each lasting eight to 10 seconds with a one-to-one or two-to-one relaxation period in between. Nurses may need to remind patients that it takes time to strengthen the pelvic floor muscles and that improvement in urinary incontinence seldom occurs before the exercises have been performed consistently over several weeks. These exercises may be performed while lying down, sitting, or standing.

The "Knack" maneuver calls for patients to remain standing while rapidly contracting their pelvic floor muscles prior to initiating a cough.[36] This widely practiced coordination exercise was designed to promote pelvic floor muscle awareness and help patients suppress the feeling of urgency.

Bladder training may be used by cognitively intact and motivated people with urinary incontinence to increase the time interval between voids and to

reduce the sensation of urgency. Two main components of bladder training are urge suppression and urge control. Urge suppression involves pausing; sitting down, if possible; relaxing; and contracting the pelvic floor muscles repeatedly in order to diminish the urge to urinate, inhibit detrusor contractions, and prevent urine loss. While waiting for the urge to subside, patients can practice urge control techniques—that is, they can try to distract themselves from the urge to void by focusing instead on a problem-solving challenge or counting backwards from 100 by nines. After the urge to urinate has subsided, patients walk at a normal pace to the toilet. A bladder drill procedure imposes a progressively lengthened interval—from five minutes to four hours, depending on patient tolerance—between voids over the course of days or weeks.

Weight management. Research has shown that women with urinary incontinence who undergo a 5% to 10% weight loss experience tremendous symptom improvement.[32] In a multicenter study of nearly 2,000 women with diabetes, weight loss was the lifestyle change that had the greatest positive impact on urinary continence recovery; investigators attributed this finding to the effects of reduced abdominal weight, intra-abdominal pressure, and intravesicular pressure.[32]

Constipation management. Straining during defecation is significantly associated with such urinary symptoms as detrusor overactivity and urgency.[35] This may be a consequence of the rising pressure that straining produces within the abdomen and on the pelvic floor and the pressure that excess fecal mass in the rectum exerts on the bladder, thereby stimulating its stretch receptors and reducing its functional capacity.

STRATEGIES FOR MANAGING FECAL OR DUAL INCONTINENCE

Information collected in a bowel diary can guide self-management interventions for fecal incontinence or dual (fecal with urinary) incontinence. For example, it can help patients schedule appointments, public outings, and exercise routines around anticipated bowel patterns. In addition, it may help patients identify troublesome foods.

Some dietary modifications patients can make to self-manage fecal incontinence include[38, 39]

- avoiding greasy and flatus-producing foods, dairy products, fruits with edible seeds (such as strawberries), acidic citrus fruits, nuts, and spicy foods.
- baking or broiling instead of frying.
- eating meals at regular times of the day.
- eating after public events to reduce likelihood of leakage.

Patients who drive often consider driving a self-management strategy, since they can usually leave public events if necessary.[40] Advise patients to keep a change of underwear and toileting supplies in their car, handbag, briefcase, or backpack, and to wear darker clothing when away from home (so if soiling should occur, it will be less noticeable). Other self-management skills for fecal incontinence include scanning the environment for toilet locations and mapping travel routes with public toilet access.[4]

Although pelvic floor muscle training is sometimes used for fecal incontinence, it has been less successful in treating fecal than urinary incontinence.[41] Strategies for bowel habit training are similar to those used in urinary incontinence, but more research is needed to evaluate their effectiveness.[41, 42]

Women are more likely than men to wear absorbent pads to manage fecal incontinence.[1] Some men prefer to place a small piece of surgical gauze between the buttocks, especially if they tend to have only a small amount of leakage.[43]

Patients with frequent fecal leakage (occurring daily or several times per week) may take antidiarrheal medication on a daily basis.[44] However, since fecal incontinence seldom occurs that frequently, many patients use these medications on an as-needed, preemptory basis—such as before attending a public function.[1, 4] Men and women with multiple sclerosis report that compared with other self-management strategies, such as using absorbent pads or making dietary modifications, using antidiarrheal medication is the most helpful intervention for controlling fecal incontinence.[45]

ADDITIONAL INFORMATION

More evidence is needed to establish the effectiveness, costs, optimal duration, and best means of delivering the various interventions that support self-management of urinary and fecal incontinence. As research continues, nurses should consider seeking additional information about supportive interventions; self-management behaviors; the value and safety of "home remedies"; products for managing incontinence from such Web sites as the National Association for Continence (www.NAFC.org), the International Continence Society (www.ICS.org), and the Simon Foundation for Continence (www.simonfoundation.org); incontinence support groups; and other health care providers that work with patients with incontinence. ▼

For three additional continuing nursing education activities on incontinence topics, go to www.nursingcenter.com/ce.

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