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Goals of Fecal Incontinence Management in Community-Living Incontinent Individuals

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Abstract

The purpose of this study was to identify goals of fecal incontinence management and their importance to community-living adults if complete continence would not be possible. Subjects expressed their goals of FI management in a semi-structured interview, selected others from 12 investigator-identified goals, and rated their importance. Five thematic categories emerged from the 114 subject-identified goal statements: “Fecal Incontinence/Bowel Pattern”, “Lifestyle,” “Emotional Responses”, “Adverse Effects of Fecal Incontinence,” and “Self-Care Practices”. Subjects selected a median of 7 investigator-identified goals (range = 2 – 12). Goals selected by the most subjects were “Decreased number of leaks of stool” and “Greater confidence in controlling fecal incontinence”. These goals also had the highest importance along with “Decreased leakage of loose or liquid stool”. The type and number of management goals identified by subjects offer a toolbox of options from which to focus therapy when cure is not possible and promote patient satisfaction.

Keywords

fecal incontinence; goals; treatment; content analysis; community

Fecal incontinence (FI), the involuntary loss of stool, affects up to 10% of the general population living in the community (Shamliyan, Wyman, Bliss, Kane, & Wilt, 2007). FI significantly reduces a person’s quality of life (Rockwood et al., 2000; Wilson, 2007). It can lead to social isolation, depression, low self-esteem, and inability to work (Peden-McAlpine, Bliss, & Hill, 2008; Rockwood et al., 2000). Yet FI is an underreported health problem. There is a stigma associated with FI (Norton, 2004), hence, the needs of people with this problem are often not voiced (Johanson & Lafferty, 1996). Clinicians also fail to inquire about FI, and opportunities for diagnosis and treatment are missed (Kalantar, Howell, & Talley, 2002; Prosser, & Dobbs, 1997; Enck et al, 1991). The lack of communication about FI has resulted in a lack of knowledge about the goals of FI management that are most important to patients when cure is not possible. Compared to older women, older men perform different self-care practices for FI suggesting their management goals may also differ (Bliss, Fischer, & Savik, 2005). Whether goals of older patients with FI differ from those of younger ones is unknown. An understanding and sensitivity to patients’ goals of FI management can be useful to clinicians for recommending treatment options, encouraging

adherence to treatment regimens, evaluating treatment responses, and determining patient satisfaction with management outcomes. Nurse leaders in incontinence research and practice have identified the need to investigate the management goals of men and women with FI to improve patient outcomes and support the practice of nurses in this area (Bliss, Norton, Miller, & Krissovic, 2004). The purpose of this study was to examine the goals of FI management identified by community-living adults with FI.

Literature Review

Knowledge of management options for FI that are preferred by patients are important for clinicians to effectively recommend and plan approaches that engage patients and align with their priorities. For other health conditions, it has been shown that patients cannot make appropriate decisions regarding management of their condition and establish goals without the proper knowledge and information from clinicians regarding realistic expectations (Filoramo, 2007). Knowledge about patient's goals and satisfaction with the goal outcomes in FI management, however, is lacking. A review of the literature produced few articles about patient goals related to management of chronic health conditions, and no studies were found reporting these outcomes for FI. Findings of studies of urinary incontinence (UI), which seem the most related to FI, are summarized.

Sale and Wyman (1994) reported treatment goals of 123 older women undergoing bladder training for UI. Although the majority of these women wanted to completely eliminate their urine leakage, 32% stated they would be satisfied if they could just decrease their number of leaks. There were a variety of goals stated by the women including regaining bladder control, reducing incontinent episodes, reducing voiding frequency, and eliminating pad use. These findings emphasize the importance of clinicians conversing with patients to determine desired outcomes prior to determining treatment decisions for UI. While most subjects identified cure as a goal, the reported cure rate was only 12%, suggesting the importance of setting realistic goals (Sale & Wyman). When cure is set as an unrealistic goal, it most often leads to disappointment, frustration, and helplessness. This outcome can result in a feeling of failure by both the clinician and patient (Toombs, 1995).

Goals of women undergoing reconstructive pelvic surgery have also been identified (Elkadry, Kenton, FitzGerald, Shott, & Brubaker, 2003). The most common goals were reducing UI, repairing pelvic organ prolapse, and reorganizing lifestyle and activity. Goals stated less frequently were related to reducing urgency and frequency of urination and maintaining sexual function. Having a greater number of goals led to more specific lifestyle expectations compared to having only one or two goals that focused mainly on curing the problem by surgery. Lifestyle related goals were a primary focus of the women and centered on returning to activities that were missed. The investigators concluded that setting and achieving patient-selected goals are important reasons for women to undergo surgery.

In the United Kingdom, a survey distributed to people with bowel or bladder incontinence living in the community asked them to identify things or services that would help them with this condition the most (Filoramo, 2007). The most common response was a request for more and conveniently located public toilets. This priority outcome was an environmental change to enable people with incontinence to respond to needs presented by their condition rather than a treatment. An important part of nursing practice for the incontinent patient is to help them cope with chronic conditions by adapting the environment. Nurses can better advise and support the patient with FI to overcome setbacks and promote good quality of life when they know which outcomes are most satisfactory to them.

Ternent, Vale, Buckley, and Galzener (2009) surveyed 188 women with stress UI about areas of their life affected by their incontinence. Thirty-eight areas were identified, and the

ones most often affected were socializing/going out, personal hygiene, sleep, shopping, depression, physical activity, work, and anxiety. Women were also asked to rate how much each area was affected by stress UI and the importance of each of the areas to them. Ratings were weighted by scores of importance and computed into an overall index. The investigators interpreted the life areas that were selected and considered important to be indicators of clinical outcomes desired by the women; they proposed that the overall index was a measure of quality of life. These findings may be considered indirect indicators of UI management goals but with caution as women were asked to identify life areas affected by UI rather than desired outcomes of management.

It is unknown whether information about goals of UI management and surgery is similar for people managing FI. To our knowledge, the results of this study are the first to describe the management goals of FI if cure is not possible. These results have the potential to improve and support the communication of health care professionals with patients about desired outcomes for FI management.

Purpose

The purpose of this study was to examine the management goals of individuals with FI living in the community if total reduction of FI would not be possible, which is often the case. The specific aims of this study were to:

1. Identify the goals of fecal incontinence management of community-living people if they could not achieve complete continence.
2. Evaluate the importance of those goals to the subjects.
3. Compare the goals between male versus female and older versus younger subjects.

These findings will be of interest to nurses and other clinicians who assist patients in managing FI by increasing knowledge and understanding of the patients' perspective of FI management. A main focus of nursing practice for incontinent patients is to help them evaluate and select management options and determine realistic goals for improvement. Nurses advise and support patients in developing goals that are appropriate and satisfactory to them, can be used to help overcome setbacks, and promote good quality of life (Filoramo, 2007).

Methods

Study Design

The design is a descriptive analysis of data collected as a part of the study, Impact of Fiber Fermentation on Fecal Incontinence, (National Institute of Nursing Research, NIH, R01-NR07756) referred to as "The Fiber Study". The Fiber Study is a randomized controlled clinical trial comparing the effect of three dietary fibers and a placebo on FI management and quality of life of community-living adults. Subjects were recruited from a large health maintenance organization and the practice of a group of colon and rectal surgeons (Whitebird, Bliss, Hase, & Savik, 2006). After a 14-day baseline period, subjects were randomly assigned to receive one of the three types of soluble fiber supplements, or a placebo supplement, for 38 days. As part of the data collection at the start of the baseline period, subjects were interviewed about their goals of FI management.

Sample

Subjects in the Fiber Study met specific criteria for study inclusion. They were required to be at least 18 years old and cognitively intact (determined by a Mini Mental State Examination (Folstein, Folstein & McHugh, 1975) score > 24), have normal continuity of

the gastrointestinal tract, leak loose or liquid stools at least twice in a two-week period, toilet independently, understand, read, and write English, and not reside in a nursing home, be tube-fed, or have swallowing problems. All 189 subjects who completed the 52-day Fiber Study protocol were included in this analysis. Their mean age was 58.4 years (13.7 (mean (SD)), and 35% were 65 years or older. Seventy-seven percent were female, 92% were White, 4% were Black, and 1.6% were Hispanic or Latino. Most were married (65%) and employed (58%) during the study period.

Data Collection Instruments and Procedures

Data from the demographics form of the Fiber Study were used to describe the study sample and form groups based on gender and age. Semi-structured interviews were conducted during which subjects were asked to identify goals related to FI management if their bowel leakage could not be completely eliminated.

The interview began with an open-ended question that allowed subjects to identify their own goals of FI management. Subjects were also able to select goals that applied to them from 12 investigator-identified goals. These goals were developed using three sources: the expertise of the investigators, a review of the literature related to treatment goals of patients for UI, and consultation with a senior nurse researcher interested in goals of UI management (personal communication with Molly Dougherty, PhD, RN, FAAN). There were three main thematic categories of the investigator-identified goals: “Fecal Incontinence/Bowel Pattern”, “Emotional Responses”, and “Self-Care Care Practices” (Table 1). Seven goals were represented in the “Fecal Incontinence/Bowel Pattern” category which focused on characteristics of FI such as frequency, amount, and consistency of leakage and defecation urgency. Two goals were in the “Emotional Responses” category and related to worry about leaking stool and confidence in controlling FI. Three goals in the “Self-Care Practices” category addressed the use of absorbent products and anti-motility medication.

Subjects were also asked to rate the importance of their goals using four methods; one method involved rating goals individually; two methods involved ranking goals in relation to all other goals; and the final method, which used a point assignment technique, enabled an evaluation of the degree of importance of a goal. Using a scale of 1 to 4 (1 = not at all important, 2 = slightly important, 3 = moderately important, 4 = very important), subjects were asked to rate the importance of each individual goal they identified or selected. To help differentiate the most and least important goals, subjects were asked to rank their top three most important goals with 1 being the most important; they were also asked to rank their three least important goals, using a scale with negative numbers with -3 being the least important. For their top three most important goals, subjects were then asked to divide 30 points of importance among them. This analysis was conducted as part of The Fiber Study which was approved by the Institutional Review Boards of the University of Minnesota and HealthPartners Research Foundation.

Data Analysis

Content analysis (Busch et al., 2005; Stemler, 2001) was performed on the subject-identified goals. The goal statements were typed and reviewed by the investigators for common themes. These themes were coded and discussed, then organized into categories and subcategories. The review process at each step was repeated until a consensus was reached among the investigators in which all the categories and sub-categories were unique and supported by the data.

Frequencies were determined for the number of subjects who self-identified each goal and for the number of goals identified by each subject. The number and type of goals that were

similar to investigator-identified goals were also determined. All subjects who identified their own goals in response to the open-ended question also selected similar goals from the investigators' list and rated their importance in the same way. Therefore, in analyses comparing goals of subgroups (e.g., men vs. women), goals self-identified by subjects that were on the investigators' list were considered only once so as not to double count them.

Mean and standard deviation or median and range (depending on the distribution of the data) were calculated to summarize the demographic data of the subjects, selection of each investigator-identified goal, and most and least importance of each goal. Contradictory responses from 38 subjects who ranked the same goal as most and least important were excluded.

Younger age was defined as less than 65 years old, and older age was defined as greater than or equal to 65 years old. T-tests were used to determine differences in importance scores between males versus females and younger versus older subjects (Rosener, 1995). A chi square test was used to compare percentages of males versus females and younger versus older persons who selected a certain goal (Rosener, 1995).

An average point ranking was calculated for each goal to determine the top three most important goals selected by subjects per points allocated. A Mann-Whitney U test was used to test differences in ranked means in scores between males versus females and younger versus older persons (Siegel & Castellan, 1988). The alpha level was .05. SPSS software (version 16.0, Chicago, IL) was used.

Results

Goals of Fecal Incontinent Management

Subject-identified goals and their thematic categories—Sixty-two subjects (33%) stated their own goals. There was a median of two goals identified by each subject (range 1–5). Five main thematic categories and 22 distinct goals emerged from content analysis of the 114 goal statements by subjects: “Fecal Incontinence/Bowel Pattern” (10 goals), “Lifestyle” (5 goals), “Emotional Responses” (2 goals), “Adverse Effects of Fecal Incontinence” (4 goals), and “Self-Care Practices” (1 goal) (Table 2). Goals in the Emotional Responses and Fecal Incontinence/Bowel Pattern categories were similar to those in these categories identified by the investigators. Additional goals identified by subjects in the Fecal Incontinence/Bowel Pattern category related to decreased pain and more complete elimination of stool during a bowel movement. Goals in the “Lifestyle” thematic category involved fewer dietary restrictions, elimination of leakage during exercise, less inconvenience in public toilet accessibility, and a normal daily routine. The category about “Adverse Effects of Fecal Incontinence” focused on reductions in symptoms of bloating, flatus, odor, skin irritation, and staining of clothing.

Selection of investigator-identified goals—All subjects selected at least two goals from the list provided by the investigators. The median number of investigator-identified goals that were selected by each subject was 7 (range 2–12). Table 1 lists the percentage of subjects who selected each investigator-identified goal. Five of the 12 investigator-identified goals were selected by 70% or more of the subjects. All but one of these was in the “Fecal Incontinence/Bowel Pattern” category. The most common goal was “Decreased number of leaks of stool”, identified by 99% of subjects. The second most frequently selected goal was having greater confidence in controlling fecal incontinence. The lowest percentage of subjects selected “Elimination of leakage of stool during sex” as a goal, which may reflect a smaller number who experienced this problem. Eight of the 12 investigator-identified goals were also identified by subjects in their open-ended responses (Table 1).

Importance of Goals

Importance of goals rated individually—All goals self-identified by the subjects and evaluated individually had a median importance rating of very important (median importance rating = 4, range = 2–4). Seventy-five percent of the investigator-identified goals that were selected by the subjects had an importance rating of very important (median = 4, range = 1–4). The remaining investigator-identified goals were rated as moderately important (median = 3, range = 1–4). The moderately important goals were “Going to the toilet less often”, “Smaller size of pad used or use a pad instead of a brief”, and “Lower dose of anti-motility medication”.

Of the goals identified by both investigators and subjects, two categories of goals were considered very important by all subjects. These were “Fecal Incontinence/Bowel Pattern” and “Emotional Responses” (median importance rating = 4, range = 1–4). Goals in the “Self-Care Practices” category had a slightly lower importance level (median importance rating = 3.5, range = 1–4) (Table 1).

Three most important goals—Table 3 shows the goals that were ranked as the top three most important goals by all subjects. The two most important goals related to decreases in liquid consistency and frequency of stool leaks. The third goal was in the Emotional Responses category, “Greater confidence in controlling fecal incontinence”. The scores

The results of the method of dividing 30 points among the top ranked goals are also shown in Table 3. This method identified the same goals as most important as did the ranking method but resulted in a different ordering of importance of the top two goals. Decreased FI frequency was first while decreased liquid consistency of leaks was second.

Least important goals—The three least important goals of all the subjects related to a desire for decreased frequency of going to the toilet (vs. being incontinent), smaller size of absorbent products used, and eliminating incontinence during sleep (Table 3).

Comparing Goals of Men vs. Women

Goals identified—Differences in goals identified by men and women were apparent in the Self-Care Practices and Fecal Incontinence/Bowel Pattern categories. A smaller percentage of men (21%, 9/44) compared to women (53%, 77/145) were interested in using fewer absorbent pads or briefs ($X^2 = 14.5$, $df = 1$, $p < .001$). The percentage of men (7%, 3/44) who were interested in a needing a smaller size of a pad was also lower than women (24%, 35/145, $X^2 = 6.3$, $df = 1$, $p = 0.006$). Significantly fewer men (52%, 23/44) than women (75%, 109/145) selected the goal of “Less urgency to have a bowel movement” ($X^2 = 8.4$, degrees of freedom (df) = 1, $p = 0.002$).

Importance of goals—Although “Elimination of leakage of stool during sleep” was a goal of lesser importance to men, they placed a significantly higher importance on it (mean (sd) importance score = 3.92 (0.28), $t = 2.2$, $df = 42$, $p = 0.03$) than did women (3.58 (0.77)). Even though there were significantly fewer men who stated that using fewer pads was a goal, the men who did select this goal, gave it a higher level of importance (score = 3.89 (0.33) than did women (3.27 (0.87), $t = 4.2$, $df = 23.9$, $p < .001$).

Three most important goals—There were differences between men and women in ranking the relative importance of goals (Table 3). Men gave highest importance to decreased leakage of loose or liquid stool while women rated this as second in importance. Women were most interested in having fewer leaks; men rated this goal third in importance.

Women considered having greater confidence in controlling FI to be more important than did men.

The method of allocating 30 points among the top goals eliminated differences in the top two most important goals of men and women seen with the ranking technique (Table 3). Having fewer leaks was of primary importance to both while decreasing leaks of loose or liquid consistency was second. Men assigned more points (i.e., gave greater importance) to both these goals. Men and women still differed in their third most important goal; men desired a decreased amount of leakage while women favored greater confidence in controlling fecal incontinence.

Least important goals—Men and women differed in their rating of goals of lesser importance to them (Table 3). Men were less interested in using fewer pads and reducing defecation urgency compared to women. Using fewer pads was tied with elimination of leakage of stool during sleep as the least important goal to men.

Comparing Goals of Younger and Older Subjects

Goals identified—Far more younger subjects selected “Elimination of leakage of stool during sex” as a goal (10%, 12/123) than did older subjects (2%, 1/66, $X^2 = 4.5$, $df = 1$, $p = 0.033$). A greater percentage of younger people (78%, 96/123) selected the goal of “Less worry or fear about leaking stool” than older subjects (55%, 36/66, $X^2 = 11.3$, $df = 1$, $p = 0.001$). Twice as many older subjects (21%, 14/66) selected the goal of “Lower dose of anti-motility medication” compared to younger subjects (11%, 13/123, $X^2 = 3.97$, $df = 1$, $p = 0.046$).

Importance of goals—When considering the importance of FI management goals individually, older subjects attributed a higher importance (mean (sd) importance score = 3.59 (0.59)) to the goal of “Decreased amount of stool leaked” than did younger subjects (3.36 (0.8), $t = -2.1$, $df = 147$, $p = 0.04$). Older subjects ranked the importance of “Elimination of leakage of stool during sleep” (importance score = 3.92 (0.23)) higher than did younger subjects (3.58 (0.77), $t = -2.2$, $df = 41.5$, $p = 0.035$).

Most and least important goals—In ranking their three most important goals, younger and older subjects identified the same two goals as being most important to them (Table 3). These related to a decrease in the leakage of loose or liquid stool and the number of leaks. Older subjects attributed greater importance to decreasing the number of leaks indicated by the greater number of points assigned to this goal on average. Younger subjects also considered “Greater confidence in controlling fecal incontinence” as an important goal whereas older subjects did not; they included “Decreased amount of stool leaked” as an important goal. There were few differences in the goals of lesser importance to young and old individuals; both groups had ties in their rankings. Older people did not include a smaller absorbent pad or using a pad instead of a brief among their least important goals as did young people.

Discussion

The results of this study indicate that community patients with FI have numerous management goals if a cure for FI would not be possible. According to Elkadry et al. (2003), the more goals stated, the more specific are the expectations for lifestyle change. The findings provide guidance for targeting therapeutic strategies toward specific outcome priorities. In this study, having fewer leaks was the most popular goal, regardless of sex or age. Approximately one-third of subjects were able to identify some of their own goals of FI

management. The other two-thirds of the subjects selected from a list of goals provided by the investigators. This finding supports the conclusions of Bliss et al. (2005) that many individuals with FI, particularly older men, may require assistance in identifying self-care management goals and practices.

Elkadry et al. (2003) found that achievement of lifestyle goals, such as sexual function and activity, had a high satisfaction. The identification of lifestyle goals by subjects when they were not included in the list developed by investigators suggests the importance of these types of goals. Among the lifestyle goals identified by subjects in our study was less inconvenience in accessibility of public toilets which supported the findings of Filoramo (2007) in the UK.

Several goals of FI management were similar to those reported for UI management: fewer incontinent episodes, needing fewer pads, reduced fear or worry about leaking, less leakage while sleeping, exercising or during sex, a more normal daily routine, and less urgency (Ternent et al., 2009; Elkadry et al., 2003; Sale & Wyman, 1994). Goals that were unique to FI were a decreased amount of leakage, more formed stool consistency, going to the toilet less often, greater confidence in controlling FI, decreased amount of anti-motility medication needed, a more regular bowel pattern, a more complete evacuation of stool, less pain on defecation, prevention of FI worsening, fewer diet restrictions, less public inconvenience and risk of exposing FI, and reduced symptoms. Many of the differences between goals of FI and UI management appear related to the nature of bowel versus bladder function.

Whereas previous studies focused only on goals of women for UI management (Elkadry et al., 2003; Filoramo, 2007, Sale & Wyman, 1994) this study provides new information about goals of men and women for FI management. There were some differences in the type and importance of goals selected by men versus women. Men were more interested in not leaking stool while sleeping and decreasing the amount of stool leaked. Aspects of FI improvement that were selected more often or considered of higher importance by women related to having less urgency and decreasing the number or size of absorbent products needed. The desire of women to reduce pad use is consistent with previous reports that more women than men wear an absorbent pad for FI or UI management (Bliss et al., 2005; Herzog, Fultz, Normolle, Brock, & Diokno, 1989; Johnson, Kincade, Bernard, Busby-Whitehead, & DeFries, 2000; Thomas & Morse, 1991). Findings suggest that it is important for clinicians to consider gender differences in care.

Our results show that goals of younger people for FI management differ from those of older people. Younger subjects were more interested in elimination of leakage of stool during sex and lessening their worry about being incontinent. Older subjects wanted to decrease anti-motility medication use, which may reflect their greater use of medications overall. Clinicians should consider age-based priorities when developing a plan of care for FI.

Knowledge about the relative importance of a patient's goals can guide clinicians in focusing their initial therapeutic recommendations. The methods of rating the most and least important goals in relation to all goals were more discriminating than rating each goal individually. When rated individually, almost all goals, the exception being self-care practice goals, were very important to the subjects. Allocating points among a smaller list of goals appeared to refine considerations of importance. However, ranking goals in relation to each other and allocating points seemed to be a confusing exercise for some people as they did not follow the instructions correctly. Ternent et al. (2009) also reported that survey respondents, especially older people, made mistakes in ranking and assigning points to survey items. In our study, using negative numbers to rank the least important goals, and, in

the survey by Ternent et al., the large number of items to rank may have increased the complexity of these procedures.

There are limitations of this study. Because the sample is limited in diversity of race and ethnicity, findings may not adequately represent goals of all groups. The validity and reliability of the methods used in this study were not established prior to their use, which is due in part to a lack of availability of an existing instrument in the literature for identifying and measuring patients' goals for managing chronic health conditions.

Clinical Implications

The findings of this study suggest that even when complete continence of stool may not be possible, community-living individuals can identify goals of management that are important to them. Nurses who care for community-dwelling adults with FI are encouraged to assist patients reflect on their own goals as well as offer them suggestions as needed. Nurses can then target therapeutic modalities toward goals of priority. For example, therapies to lower the frequency of leaking loose or liquid stool may be a priority. Nurses need to consider age and sex differences in management goals when caring for patients with FI. For example, our findings suggest nurses seek alternatives to medication use for FI in older subjects and discuss sexual concerns with younger patients.

Results suggest that goals can be comprehensive in nature addressing lifestyle and emotional effects of FI as well as bowel patterns. Engaging patients to participate in goal setting and activities to achieve those goals may help them feel more hopeful or confident in controlling FI and thereby continue or return to their usual activities. According to Elkadry et al. (2003), achievement of goals even when focused on improvements of less than complete cure was highly correlated with returning to normal activities. Additional research is needed in relation to FI management goals. Findings indicate that separate goals should be determined for FI and UI management as we have shown there are differences.

The variety of goals selected suggests the possibility of having a toolbox approach to FI management. Nurses and patients might collaborate in developing a tailored plan of FI management for a patient from a set of management options thus promoting motivation, realistic expectations for improvement, and satisfaction. Further research is needed to determine whether setting goals and tailoring interventions effective in promoting adherence to a management plan and improving satisfaction.

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References

- Bliss DZ, Fischer LR, Savik K. Managing fecal incontinence: self-care practices of older adults. *Journal of Gerontological Nursing*. 2005; 31(7):35–44. [PubMed: 16047958]
- Bliss DZ, Norton CA, Miller J, Krissovic M. Directions for future nursing research on fecal incontinence. *Nursing Research*. 2004; 53(6 Suppl):S15–21. [PubMed: 15586143]
- Busch, C.; De Maret, PS.; Flynn, T.; Kellum, R.; Sheri Le, S.; Meyers, B.; Saunders, M.; White, R.; Palmquist, M. Content Analysis. Writing@CSU. Colorado State University Department of English; 2005. Retrieved October 11, 2009 from [tp://writing.colostate.edu/guides/research/content/](http://writing.colostate.edu/guides/research/content/)
- Elkadry EA, Kenton KS, FitzGerald MP, Shott S, Brubaker L. Patient-selected goals: a new perspective on surgical outcome. *American Journal of Obstetrics & Gynecology*. 2003; 189(6): 1551–1557. [PubMed: 14710061]

- Filoramo MA. Improving goal setting and goal attainment in patients with chronic noncancer pain. *Pain Management Nursing*. 2007; 8(2):96–101. [PubMed: 17544129]
- Enck P, Bielefeldt K, Rathmann W, Purrmann J, Tschope D, Erckenbrecht JF. Epidemiology of faecal incontinence in selected patient groups. *International Journal of Colorectal Disease*. 1991; 6:143–146. [PubMed: 1744485]
- Folstein MF, Folstein SE, McHugh PR. Mini-mental state. A practical method for grading the cognitive state of patients for the clinician. *J Psychiatr Res*. 1975; 12:189–198. [PubMed: 1202204]
- Herzog AR, Fultz NH, Normolle DP, Brock BM, Diokno AC. Methods used to manage urinary incontinence by older adults in the community. *Journal of the American Geriatrics Society*. 1989; 37(4):339–347. [PubMed: 2921456]
- Johanson JF, Lafferty J. Epidemiology of fecal incontinence: the silent affliction. *American Journal of Gastroenterology*. 1996; 91(1):33–36. [PubMed: 8561140]
- Johnson TM 2nd, Kincade JE, Bernard SL, Busby-Whitehead J, DeFries GH. Self-care practices used by older men and women to manage urinary incontinence: results from the national follow-up survey on self-care and aging. *Journal of the American Geriatrics Society*. 2000; 48(8):894–902. [PubMed: 10968292]
- Kalantar JS, Howell S, Talley NJ. Prevalence of faecal incontinence and associated risk factors; an underdiagnosed problem in the Australian community? *Medical Journal of Australia*. 2002; 176:54–57. [PubMed: 11936284]
- Norton C. Nurses, bowel continence, stigma, and taboos. *Journal of Wound, Ostomy, & Continence Nursing*. 2004; 31(2):85–94.
- Peden-McAlpine C, Bliss DZ, Hill J. The Experience of community-living women managing fecal incontinence. *Western Journal of Nursing Research*. 2008; 30(7):817–835. [PubMed: 18270314]
- Prosser S, Dobbs F. Case-finding incontinence in the over-75s. *British Journal of General Practice*. 1997; 47:498–500. [PubMed: 9302789]
- Rockwood TH, Church JM, Fleshman JW, Kane RL, Mavrantonis C, Thorson AG, et al. Fecal Incontinence Quality of Life Scale: quality of life instrument for patients with fecal incontinence. *Diseases of the Colon & Rectum*. 2000; 43(1):9–16. [PubMed: 10813117]
- Rosner, B. *Fundamentals of Biostatistics*. 4. New York: Duxbury Press; 1995.
- Sale PG, Wyman JF. Achievement of goals associated with bladder training by older incontinent women. *Applied Nursing Research*. 1994; 7(2):93–96. [PubMed: 8031113]
- Shamliyan T, Wyman J, Bliss DZ, Kane RL, Wilt TJ. Prevention of urinary and fecal incontinence in adults. *Evidence Report/Technology Assessment*. 2007; (161):1–379.
- Siegel, S.; Castellan, NJ. *Nonparametric statistics for the behavioral sciences*. 2. New York: McGraw-Hill; 1988.
- Stemler S. An overview of content analysis. *Practical Assessment, Research & Evaluation*. 2001; 7(17). Retrieved October 11, 2009 from <http://PAREonline.net/getvn.asp?v=7&n=17>.
- Ternent L, Vale L, Buckley B, Glazener C. Measuring outcomes of importance to women with stress urinary incontinence. *BJOG*. 2009; 116:719–725. [PubMed: 19298440]
- Thomas AM, Morse JM. Managing urinary incontinence with self-care practices. *Journal of Gerontological Nursing*. 1991; 17(6):9–14. [PubMed: 2033218]
- Toombs SK. Chronic illness and the goals of medicine. *Second Opinion*. 1995; 21(1):11–19. [PubMed: 11660046]
- Whitebird R, Bliss DZ, Hase K, Savik K. Community-Based Recruitment and Enrollment for a Clinical Trial on the Sensitive Issue of Fecal Incontinence: The Fiber Study. *Research in Nursing and Health*. 2006; 29:233–243. [PubMed: 16676338]
- Wilson M. The impact of fecal incontinence on the quality of life. *British Journal of Nursing*. 2007; 16(4):204–206. [PubMed: 17363849]

Table 1

Selection and Importance of Investigator Identified Goals

Thematic Categories of Investigator-Identified Goals	Subjects who Identified Each Goal (N = 189) Percent (Frequency)	Importance Rating *
Fecal Incontinence/Bowel Pattern		
Decreased number of leaks of stool **	99 (187)	4
Decreased amount of stool leaked **	87 (164)	4
Decreased leakage of loose or liquid stool **	86 (163)	4
Less urgency to have a bowel movement *	70 (132)	4
Going to the toilet less often	64 (121)	3
Elimination of leakage of stool during sleep **	23 (44)	4
Elimination of leakage of stool during sex	7 (13)	4
Emotional		
Less worry or fear about leaking stool **	70 (132)	4
Greater confidence in controlling fecal incontinence **	92 (174)	4
Self-Care Practices		
Fewer pads or briefs needed **	45 (85)	4
Smaller size of pad used or use a pad instead of a brief	20 (38)	3.5
Lower dose of anti-motility medication	14 (27)	3

* Importance scale is 1–4 with 4 being most important; results are median values;

** Investigator-identified goal that is similar to subject-identified goal

Table 2

Subject-Identified Goals

Thematic Categories of Subject-Identified Goals (Number of Goal Statements in Category)	Example Goal Statement
Fecal Incontinence/Bowel Pattern (52)	
Elimination of fecal incontinence (10)	"I'd like for it to not happen at all"
Less episodic nature of fecal incontinence (10)	"More regular BM pattern"
Decreased number/frequency of leaks of stool(9)	"Decrease the frequency of the stool leakage"
Less urgency to have a bowel movement*(7)	"Not have to find a bathroom right away; being able to hold it."
Less loose consistency of stools (6)	"I want my stool to be formed" "Not to have loose stools"
More complete evacuation of stool with each bowel movement (4)	"Being able to finishing having a BM -- complete elimination" "I want to pass my stool all at once"
Less pain on defecation (3)	"Decreasing pain when I leak stool"
Prevention of fecal incontinence worsening (1)	"I don't want it to get any worse"
Decreased amount of stool leaked (1)	"Less loose stool"
Elimination of leakage of stool during sleep (1)	"Would like not to have fecal incontinence wake me up at night"
Lifestyle (27)	
Fewer diet restrictions/effective fecal incontinence management using diet (8)	"Be able to eat the foods I enjoy a lot" "I'd like to know what foods would help"
Less public inconvenience and risk for exposing fecal incontinence presence (8)	"Not plan life around bathroom location" "Not be so afraid to go out"
More normal life (5)	"Return to more normal life" "Getting my life back"
Elimination of leakage during exercise (3)	"Not have stool leakage while exercising" "Take longer walks without toilet nearby"
Additional benefits of dietary fiber for a healthier lifestyle (3)	"Fiber to improve blood sugar and cholesterol"
Emotional Responses (21)	
Better control and increased confidence (16)	"Get to a point of 99% manageability" "Have social confidence"
Less worry or fear about leaking stool (5)	"Go out and not worry about leaks and bathroom location"
Adverse Effects of Fecal Incontinence (11)	
Less bloating and gas (5)	"Reduce gas and bloating symptoms"
Less skin irritation (4)	"Decrease skin irritation"
Less odor (1)	"Not having the odor"
Less Soiling of clothing (1)	"Stains off underwear"
Self-Care Practices (3)	
Fewer pads or briefs used (3)	"Decrease the number of pads I use"

Table 3

Importance of Goals of Fecal Incontinence Management

Rank [*]	Most Important Goals Using Ranking Method			
	Decreased number of leaks of stool	Decreased amount of stool leaked	Decreased leakage of loose or liquid stool	Greater confidence in controlling fecal incontinence
All Subjects	2		1	3
Men	3	2	1	
Women	1	2	3	
Younger (< 65 years)	2		1	3
Older	2	3	1	
Order of importance [*]				
Top Goals Based on Allocation of 30 Points of Importance				
All Subjects	1		2	3
Men	1	3	2	
Women	1		2	3
Younger	2		1	3
Older	1	3	2	
Least Important Goals Using Ranking Method				
Rank [†]	Less urgency to have a bowel movement	Going to the toilet less often	Elimination of leakage of stool during sleep	Fewer pads or briefs used
				Smaller size of pad used or use a pad instead of a brief
All Subjects		1	2	3
Men	2	1	3	3
Women		2		1
Younger		1	3	2
Older		1	3	1

^{*} ranking scale: 3 = important, 2 = more important, 1 = most important

[†] ranking scale: 1 = less importance, 2 = lesser importance, 3 = least important