

Review

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## The impact of urinary incontinence on self-efficacy and quality of life

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### Abstract

Urinary incontinence impacts 15 to 35% of the adult ambulatory population. Men after the removal of the prostate for cancer can experience incontinence for several weeks to years after the surgery. Women experience incontinence related to many factors including childbirth, menopause and surgery. It is important that incontinence be treated since it impacts not only the physiological, but also the psychological realms of a person's life. Depression and decreed quality of life have been found to co-occur in the person struggling with incontinence.

Interventions include pharmacological, surgical as well as behavioral interventions. Effective treatment of incontinence should include the use of clinical guidelines and research to promote treatment efficacy.

### Urinary Incontinence

Urinary incontinence (UI) impacts an estimated 15 to 35% of the adult ambulatory population 60 and older that live in the community with prevalence rates for women being twice that of men [1,2]. There is a variance in epidemiological data regarding urinary incontinence (UI) prevalence rates because of inconsistent definitions of incontinence, differences in questionnaires, settings, and methodology, as well as the reliability of self-report data [3-7,2]. Also contributing to the variance in reported prevalence may be that many sufferers fail to report the occurrence of UI to their health care provider because of the belief that incontinence is a normal phenomena associated with aging or that UI is untreatable. There is also the stigma associated with not being able to control the basic functions of elimination.

### Implications

Involuntary loss of urine has multiple implications for the sufferer [6,8]. Incontinence also has been noted to be a

major barrier to social interests, entertainment, or physical recreation [9-11].

### Depression

Depression and anxiety have been suggested to co-occur in incontinent persons [1,12,9,13,14]. Several researchers have found a link between incontinence and depression [15-17]. It is unclear if the incontinence causes depression or if depression causes incontinence. However, it is clear that a relationship exists. Bandura (1977a) proposed that depression will occur when either self-efficacy or outcome expectancy is low. There is thought to be a reciprocal relationship among self-efficacy, performance, and one's emotional state [18-20]. Depression is described as "an alteration in mood ranging from a mild sadness to overwhelming despair. It is characterized by feelings of sadness, emptiness, dissatisfaction, lowered self-esteem, inactivity, and self-depreciation" [21].

Depression may be created by personal perception of cognition, negative events, and physiological states. Depres-

sion occurs when one feels a perceived inefficacy in controlling valued outcomes [22]. This perception impacts the choice of activities one chooses to engage in and the effort and persistence one is willing to invest in the activity [22,23]. Self-evaluation of accomplishments are often devalued by those with low self-efficacy because success is based on high performance standards [22]. When outcomes are highly valued, depression is likely when outcome expectancy is high and performance expectation is low [22,23].

### **Self-efficacy and Quality of Life**

Women with UI are also more likely to report a poorer quality of life [10,24]. The effect of self-efficacy on quality of life has been investigated in several studies of health related behaviors. Self-efficacy and quality of life are positively related while depression and self-efficacy are negatively related. The choices, goals, effort, and persistence of an individual can be impacted by individual self-efficacy [18,22]. Interventions that are tailored to increase self-efficacy may improve depression and quality of life.

### **Financial Impact**

The total cost of UI in 1995 was reported to be more than 16.4 billion dollars annually (Hu, 1990). Of this total 11.2 billion dollars is spent for community dwelling individuals and an additional 5.2 billion dollars is spent on continence care in the institutional setting [1,25]. Findings of a study by Baker and Bice (1995) indicated that individuals with UI: 1) suffered more disability; 2) are more likely to use more expensive paraprofessional service and purchase medical equipment; and 3) cost an estimated 25% more to the public in home care costs.

### **Treatment**

Controlling incontinence may be pharmacological, surgical or behavioral in nature. The first line of intervention is recommended to be the least invasive in nature, such as the case in pelvic muscle exercises [1]. Pharmacological agents may also be used in conjunction with pelvic muscle exercises to promote the return to continence. There is a reported 61% increase in continence in women using pelvic exercises as an intervention for incontinence and reported improvements in quality of life.

Treatment of UI is based on a thorough assessment to confirm the presence of UI, the type of UI, identification of contributing factors, and the determination of patients that may require further evaluation prior to any therapeutic interventions.[1]. The information obtained during assessment is also vital in implementing the appropriate treatment for UI. Treatment and interventions for UI are medications, mechanical devices, surgery, and behavioral modification. Several medications have proved beneficial for UI; however the risk to benefit ratio is not clear.[1].

Estrogen replacement therapy may also be useful for UI and has been used in women that have estrogen deficiencies to reduce urgency and frequency of urge UI and in combination with adrenergic agonists to treat stress UI [26,6]. The side effects of the pharmacological agent used, the characteristics of the UI, and patient and physician preference must all be weighed in the decision to use medications as an intervention [26].

Surgery has also proved to be effective when other interventions for pelvic prolapse, bladder neck, or urethral obstruction fail [26,27]. Surgery may also be indicated in certain cases of stress UI that are not responsive to pharmacological and behavioral interventions [26]. However, the long-term results of surgery for UI remain under investigation. Mechanical devices such as urethral plugs, weighted vaginal cones, and pessarys have been shown to be effective in selected situations.[1]. Behavioral interventions have also been shown to be successful as a treatment for stress and urge UI [28,29], although the long-term effects of these therapies also need further study.[1].

### **Theoretical Models**

There are few theoretical models that have been developed to organize data and research results related to incontinence research. Because UI impacts the social, physiological and psychological domains, the models used must be holistic in nature. One model that has been described is self-efficacy. Self-efficacy is described as the personal judgments one makes about ability to execute courses of action in a particular set of situations [18,23]. Social Cognitive Theory was the foundation from which self-efficacy theory was derived. Self-efficacy theory proposes that outcomes are determined by one's actions. One's perception of capabilities will impact how one behaves, the level of motivation, thought patterns, and emotional reactions in taxing situations [18,19]. The measurement of self-efficacy for the performance of pelvic muscle exercises as a behavioral intervention for UI can provide important information regarding one's motivation and belief about the efficacy of the prescribed intervention. The measurement of self-efficacy may also provide a foundation for better understanding the relationship between self-efficacy and successful outcomes [30,31].

The Broome Pelvic Muscle Self-efficacy Scale was developed using Bandura's self-efficacy theory and has demonstrated utility in predicting success in behavioral interventions for incontinence in women [32,33]. Testing of the scale in men with post-prostatectomy incontinence is ongoing. To date there no preliminary data describing the relationship between self-efficacy and the success of remediation for post prostatectomy incontinence.

### Clinical Care Guidelines

There should be a routine assessment for incontinence in all health care settings.

Practice guidelines should be developed for clinician use.

Emphasize preventative and restorative care.

Develop a multidisciplinary and holistic approach to continence care.

### Necessary Research

Conduct research on comparing intervention effectiveness.

Continue research on the impact of self-efficacy on outcomes.

Conduct longitudinal studies to evaluate interventions.

Evaluate continence outcomes on self-efficacy, depression and quality of life.

Conduct studies on interventions for men with incontinence.

Conduct research in minority populations.

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