

Original Article

ROLE OF URINARY INCONTINENCE IN DEPRESSION AND LIFE SATISFACTION IN GERIATRIC PATIENTS

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Abstract

Background: Urinary incontinence (UI) is a highly prevalent in elderly people. The aim of the study was to see the relationship between urinary incontinence, depression, and life satisfaction in elderly patients. Moreover, it aimed to investigate the predictive role of UI in geriatric depression and life satisfaction in elderly patients.

Methods: This was the cross-sectional study. 83 patients (45% male and 55% female) with a mean age of 69 years (51-102 years) were included in this study. Self-report measures were used. Geriatric Depression Scale, Questionnaire for Urinary Incontinence Diagnosis, and life Satisfaction Scale were used for data collection.

Results: Results showed that geriatric depression is significantly positively associated with the UI and negatively associated with the Life satisfaction. UI is also negatively associated with Life satisfaction. In addition, age is significantly positively associated with geriatric depression and UI. Duration of illness is significantly positively associated with depression, whereas, education is negatively associated with depression and UI. Regression analysis showed that UI positively predicted the geriatric depression and negatively predicted the life satisfaction.

Conclusion: UI positively predicts Geriatric depression and lowers the life satisfaction. Timely assessment and effective management of UI may reduce the depressive symptomatology and enhance life satisfaction. Understanding the associations between these variables can have substantial implications for both clinical work and research in this area.

Keywords: Urinary incontinence, depression, life satisfaction, geriatric patients

Introduction

Urinary incontinence is a common medical problem very often wrongfully accepted as a normal part of the aging process. It is one of the most common geriatric syndromes that affect overall health, massive reduction in quality of life, and influence daily living functioning.¹ UI is defined as the involuntary leakage of urine that significantly impairs one life, restricting social activity, and usually accompanied by medical complications.⁽²⁾ These physiologic and pathologic changes predispose the older individuals to becoming incontinent.⁽³⁾ The incontinence cases have been classified according to the different types such as: stress incontinence; urge incontinence; mixed incontinence. UI not only affects the patient but also caregivers and causes an enormous socio-economic burden.

In a study conducted at Tokyo Metropolitan Institute of Gerontology, the prevalence of UI has been reported 13.4% in men and 23.3% in women and increases with age. ⁽⁴⁾ In another population based study by Atlanta Geriatric Research, USA, three-year incidence of incontinence was 29% in women and 24% in men.⁽⁵⁾ In

addition, the prevalence of self-reported incontinence was 11.8% and 26.2% among men and women respectively with 34% had the depression. Likewise, among the old institutionalized Chinese men (mean age= 80 years) in Taiwan, almost 92 % participants were functionally independent, 8 % had depressive symptoms and 20 % had some level of cognitive impairment.⁶ The overall urgency and functional incontinence was 19.1%. Frailty was more common among subjects with UI than those without. Besides, participants with UI had more comorbidity, poor physical and cognitive functioning, more depressive symptoms, stool incontinence, and poorer nutritional status.⁽⁷⁾ UI have been significantly associated with a lower level of physical fitness, slower walking speed, and lack of physical activity. ⁷ Moreover, female gender, advanced age, education, health status, enlarged prostate and/or, prostate cancer chronic diseases, hypertension, and major depression are potential associated factors of UI. ⁽⁸⁾

Effects of UI on health and quality of life are well established. ⁽⁹⁾ UI is commonly underreported due to embarrassment and general perception that

incontinence is a normal part of aging. 10 It is not only common in men, but also a large number of geriatric women are facing this problem. (11) In addition, most of the geriatric women with UI do not seek treatment. For instance, in a study, to find the reasons why women with UI are not seeking treatment. Findings showed that female patients assumed that UI is not bad enough; it is a normal consequence of aging or childbirth and no definite treatment is available.13 Feelings of hesitation to report about UI in front of health care providers is another reason that's why they do not seek treatment.

UI has the direct link with the psychological distress (i.e., moderate to severe depression). In a study that was conducted to investigate depression and anxiety in women with UI and to assess factors influencing their self-perception of UI severity, a sample of 82 patients was taken. Findings showed that almost 44 % of women with idiopathic urge incontinence exhibited major depression and almost 17 % women with stress incontinence showed major depression.14 The severity of UI was associated with high mental distress, worse perception of health and restricted social activities. Furthermore, UI adversely effected patient's daily lives and became a barrier for normal social function.

To see the relationship between the UI and life satisfaction, it have been demonstrated that higher the frequency and severity of psychological symptoms, lower the level of global life satisfaction 15 in terms of sexual functioning, social isolation, psychosocial well-being and life quality. UI patients were more dejected 16 emotionally disturbed, and socially aloof as compared with continent individuals. Patients with UI are less healthy because of greater comorbidities.(17) Mostly patients do not mention symptoms that may lead to loss of autonomy, 18 functional decline, reduced physical activity and frailty. (19) Adverse physical and mental health, poor life satisfaction, functional limitation, and perception that UI interfered with daily life are significant predictors of depression. (20,21) Women were more likely than men to report UI. Women with incontinence showed high negative affect while men with stress incontinence exhibited negative affect.(22) However, women reported more comorbid diseases while men reported more lack of functional ability and poor self-rated health. (23)

There are very limited research on UI and geriatric depression in Pakistan. The aim of the study was to see the effects UI in elderly patients in Pakistani context. The study will take us a step ahead to comprehend these relatively unique and comparatively neglected phenomena. Moreover, it aimed to see the psychological and demographic correlates of UI. Moreover, it aimed to investigate the impact of UI on depression and life satisfaction. Based on previous literature we have hypothesized that UI is positively associated with geriatric depression and negatively related with life satisfaction. Life satisfaction is negatively related with depression. UI would positively predict depression and

negatively predict life satisfaction.

Methodology: A demographic sheet was devised to obtain the personal and disease related information from the patients. The demographic sheet contained the information related to patients age, gender, education, income, current illness, and duration of illness. Urdu translated version of QUID 24 was used to assess the UI. This scale was translated by authors for the current study. All the four steps of translation were followed. It is 6 item diagnostic tool that distinguishes stress and urge incontinence. For the Stress score, responses to items 1, 2 and 3 are summed to get the cumulative stress score and responses to items 4, 5, and 6 are summed for the Urge score. Cronbach's alpha correlation coefficient of the scale is .89. Urdu translated version of Depressive symptoms were screened by the GDS-SF. 25 It is dichotomous type scale, it consist 15 items. GDS short form is considered useful in situation where economy of time is required. Reliability of GDS-SF is .89. A total score greater than 5 suggests that it is an issue of concern. Urdu translated version of SWLS 26 was used to assess life satisfaction. The scale consists of 5-items which are used for measuring the global judgment of individual life. Response options was developed on 7-point ranging from strongly agree to 1 strongly disagree. Scores between 5-9 depicts extreme dissatisfaction with life, whereas score between 31-35 show extreme satisfaction with life. The alpha coefficient for SWLS is ranged from .79 to .89 that demonstrates that scale has high internal consistency. Research comprises of 83 elderly patients who were admitted in the Urology wards of six hospitals of Rawalpindi and Islamabad. Sample included both male (n= 36) and female (n= 46). Age ranged from 51 to 102 years (M= 69.23, SD= 11.26). Convenient sampling was utilized for data collection. The participants were approached after taking the formal permission from the hospital administration. Informed consent was taken from the patients. They were informed that their participation is voluntary and can withdraw. They were given the assurance that all the information they would provide, would be kept confidential and would be used only for research purpose. The participants were briefed and instructed about filling the questionnaires. The data was taken orally and statements were read for them in interview method. At the end they were thanked for their participation.

Results

Descriptive statistics, bivariate correlation analysis and regression analysis between the study variables was computed by using Predictive Analytics Software (PASW) 22. Descriptive statistics showed that the age of the participants was ranged from 51 to 102 years (M = 69.23, SD= 11.26). Almost 51 percent of the participants has no education, 12 percent were below matriculation and 37 percent had the matriculation and/or above education. The duration of illness was ranged from 3

months to 20 years (M=4.50 years). Almost 81 percent of patients had some sort of comorbid medical condition. Prior to bivariate analysis, assumptions of linearity and normality were tested before inferential statistics that showed that the data was normally distributed. The normality of each variable was computed in terms of its skewness. Alpha values and scale characteristics are reported in Table 1.

Table 1: Alpha Reliability Coefficients and other Psychometric Properties of the Scales Used in the Study (N=83)

Scales	Item	M	SD	.76	Range		Skew
					Potential	Actual	
Geriatric Depression Scale	15	12.14	2.53	.76	0-15	6-15	-.83
Urinary Incontinence Scale	6	20.77	4.23	.64	0-30	9-30	.44
Life Satisfaction Scale	5	15.01	4.92	.77	7-35	7-33	1.28

Table 1 depicts the alpha reliabilities, mean, standard deviations, ranges, and skewness of the measures used in study. The values of alpha coefficients range from .64 to .77. The values of skewness are in acceptable ranges, that suggests the normal distribution of the data (Field, 2009). The reliabilities of all the scales are satisfactory.

Table 2: Relationship between the Geriatric Depression, Urinary Incontinence and Life Satisfaction among Elderly Patients (N=83)

Variables	1	2	3
1 Geriatric depression	-	.46**	-.30**
2 Urinary Incontinence		-	-.22*
3 Life Satisfaction			-

Note. **p < .01

Results in Table 2 shows that geriatric depression is significantly positively associated with the UI and negatively associated with the life satisfaction. Moreover, UI is also negatively associated with life satisfaction.

Table 3: Relationship of Demographic variables with Study Variables (N=83)

Variables	Geriatric Depression	Urinary Incontinence	Life Satisfaction
Age	.51**	.26*	.01
Duration of Illness	.34**	.11	-.14
Monthly Income	-.16	-.14	.50**
Education	-.42**	-.50**	.21

Note. *p < .01; **p < .01

To see the relationship of demographic variables with study variables, results showed that age is significantly positively associated with geriatric depression and UI. In addition, duration of illness is significantly positively associated with depression, whereas, education is negatively associated with depression and UI.

Table 4: Role of Urinary Incontinence in Predicting Geriatric Depression and Life Satisfaction among Elderly Patients (N=83)

Predictors	Geriatric Depression		p
	B	S.E	
Constant	6.34	1.28	.01
Urinary Incontinence	.28	.06	.01
Life Satisfaction			
Constant	20.40	2.77	.01
Urinary Incontinence	-.26	.13	.05

Note. **p < .01, *p < .05

To see the predicting role of urinary incontinence in predicting geriatric depression and life satisfaction, regression analysis showed that urinary incontinence positively predicted the geriatric depression and negatively predicted the Life satisfaction.

Discussion

UI frequently occurs in geriatric patients. Transient UI typically appears suddenly and lasts less than six months. (27) In elderly people, UI is mostly associated with an increased risk of urinary tract infections and depression. It is erroneously believed that UI is inevitable in older adults and does not have any psychosocial effects. Whereas, UI negatively affects the wellbeing of the patients. To see the effect of UI on depression and life satisfaction, the present study was conducted. Moreover, psychological and demographic correlates of UI were examined. On the basis of previous literature we hypothesized that UI is positively associated with geriatric depression and negatively associated with life satisfaction.

Our findings are inline with past research. For example, past literature showed that UI may cause psychosocial problems such as mental distress, restricted activities, social isolation and sexual problems. These psychosocial problems subsequently threaten life satisfaction, well-being and quality of life. Likewise, previous research demonstrated that patients with UI are more likely to be emotionally disturbed and depressed compared to healthy elderly people. Besides, UI adversely affects daily lives of patients and could be a potential barrier for normal social functioning. 14,15,16

These findings are aligned with past research. That demonstrated that UI was associated with being female, advanced age and poor education.19 it suggested the education may serve as a protective factor against the UI. Similarly literature is replete with the research that showed that prevalence increases with age in both sexes. It means that UI increases with age. 18

Moreover, results also showed that geriatric depression negatively predicted life satisfaction. Our findings are corroborated with past literature, that depression negatively predicted the life satisfaction. 20 For instance, it has been demonstrated that depressive symptoms and life satisfaction were inversely related with each other and depression is the independent predictor of lower life satisfaction. 28

Health education may help an individual with UI to better

understand the disease and take timely assistance. Poor health education/literacy has been found associated with increased likelihood of UI among geriatric patients. So, not only the geriatric patients of all ages should be made aware of the nature of UI but also caregivers should familiarize themselves with the available treatment options. Failure to detect and resolve to short-lived and temporary UI may lead to permanent incontinence. So, a bladder diary and a mnemonic are helpful to figure out the nature of problem, its causes and possible treatment options. (27) Physicians and health professional should properly investigate the health literacy and cognitive level of those patients who are at risk for UI. (29)

Despite the fact that no standardized generally accepted assessment is available, however, UI symptom questionnaires are valuable research and patient care instruments. Furthermore, type of UI is often diagnosed by history, and further confirmed by detail evaluation or urodynamic testing. Besides, it is generally agreed and well documented that older people have high chances UI. Careful screening for UI ought to be part of every geriatric assessment. Treatments options need to be tailored according to the patient's capabilities, while keeping in mind his/her general health, physical mobility, motivation for treatment and cognitive performance. However, behavior modification, pelvic floor training, toilet training and other behavior interventions could be used prior to any sort of pharmacotherapy. 6 Pelvic floor exercises, pessaries, or surgery are helpful for stress UI, while for urge UI, behavior modification with or without drug therapy is helpful. They may have symptoms of dementia, diabetes mellitus, urinary tract infection, medication-induced decrease in cognitive function, and reduced mobility. These comorbid conditions must be diagnosed quite carefully while making the treatment plan. UI patients may be also at risk for potential harm because of pharmacological treatment for overactive bladder syndrome. (3)

Incontinence in the elderly is usually multifactorial in nature and must be approached in a comprehensive manner, so that all reversible causes are identified and treated. Serious lesions are excluded and targeted therapy may be prescribed.³⁰ For this, an interdisciplinary collaboration is helpful for the effective treatment and optimal outcome (15) Study has the implications for health professionals in general and mental health professionals in particular. Timely interventions may help in reducing the problem.

Conclusion

Further researches are needed to see the impact of UI on psychosocial issues among geriatrics patients. Well-timed assessment and effective management of UI may reduce the depression and increase life satisfaction. Failure to assess and address the temporary UI may lead to long term conditions. The Further study is needed to evaluate the possibilities of reversing these geriatric syndromes by an integrated intervention program.

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