

Quality of life in women with urinary incontinence

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SUMMARY

The aim of this study is to examine the relationship among psychological, clinical and sociodemographic variables, and quality of life in women with urinary incontinence. The sample consisted of 80 women diagnosed with urinary incontinence (UI) followed in a Northern Central Hospital in Portugal. Participants answered the Incontinence Quality of Life (I-QOL); Satisfaction with Sexual Relationship Questionnaire (SSRQ); Hospital Anxiety and Depression Scales (HADS) and the Brief Cope. The results revealed that women with higher quality of life considered their symptoms of urine loss as mild or moderated compared to those with severe urine loss. The less severe urine loss was associated with greater sexual satisfaction and less use of religion and self-blame as coping strategies. In terms of coping, women who considered the loss of urine as severe expressed more feelings regarding UI. Stress urinary incontinence, high sexual satisfaction, and less use of denial, distraction, and religion as coping strategies, predicted higher quality of life. According to the results, UI has an impact on women's sexual satisfaction and quality of life. Therefore, intervention programs should target these women, including their partners, helping them to adjust to their condition and teaching effective coping strategies in order to improve their sexual satisfaction and quality of life.

Keywords: urinary incontinence, quality of life, sexual satisfaction, psychological morbidity, coping strategies.

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INTRODUCTION

Voluntary control of the bladder is a prerequisite for the sense of normality, self-esteem and independence,¹ which begins in childhood as something personal not socially talked about. Therefore, urine loss is a condition with a profound impact in social life, both for children and adults.²

According to the International Continence Society, the complaints related to involuntary urine loss is called urinary incontinence (UI), that may be stress urinary incontinence (SUI) associated with effort, sneeze or cough, urge urinary incontinence (UUI) associated with loss, accompanied or immediately preceded by urgency, and finally mixed urinary incontinence (MUI) that occurs due to urgency, effort, sneezing or coughing.³ Although UI is not considered a severe physical disease and does not affect people's life directly, it is a common condition and is linked to numerous psychological and social and economical problems.^{4,5} The leakage of urine involves several repercussions in quality of life of adult women,^{6,7} in

their emotional state and in sexual intercourse.^{8,9} Taking in consideration the fact that UI is related to areas of the body hidden by clothing and sexuality, it is still a taboo in Western societies, associated with myths and social restrictions.¹⁰ In fact, women often choose not to leave their home for fear and shame of losing urine in public, feeling wet and smelling, not finding a bathroom when they need to change clothes or their protective pad. As a result, several women with UI, avoid going to parties, long trips, attending church and participating in physical activities such as walking, running, playing and dancing.^{5,8,9}

According to the WHOQOL,¹¹ quality of life depends on the subjective perception of the UI, and its treatment at social, physical and mental levels. Temml et al.¹² found that 66% of women reported that their quality of life was affected by UI. In general, women consider that UI has a greater impact on physical and social activities, trust and self-perception¹³ and have a smaller impact on daily activities.¹⁴

Sexuality plays a vital role¹⁵ and is a complex issue, strongly modulated by psychosocial factors.¹⁶ Temml et al.¹² found that 25% of women reported that the UI contributed to a decrease in sexual life. Sexual dissatisfaction in women resulted in a decreased personal and marital quality of life.¹⁷

In the study of Lagro-Janssen et al.¹⁸ women reported that the UI was not a problem that threatened their lives or limited their activities, but disturbed their lifestyles and especially their functioning and psychological well-being. Of a total of 82 women with UI, 26% had depressive symptoms, while 29% had anxiety symptoms.¹⁹ Yip and Cardozo²⁰ reported that there is a probability of psychological morbidity due to the impact of UI on quality of life. For Melville et al.²¹ and Vigod and Stewart,²² major depression and comorbidity significantly affect the quality of life in women with UI. Stach-Lempinen et al.¹⁹ found that women with UI showed decreased quality of life and reported more symptoms of depression.

Coping strategies are very important to maintain one's identity and perceived competence,²³ since UI is often associated with lack of self-control.²⁴ Studies found that the following coping strategies: active coping,²⁵ acceptance of the disease, being optimistic,²⁶ expression of feelings,²⁷ positive religious coping,²⁸ were associated with better quality of life.²⁹ Other studies revealed that behavioral disengagement,²⁵ self-blame,³⁰ high distraction,²⁶ and negative religious coping, such as a pessimistic view of the world and spiritual discomfort²⁸ were associated with worse quality of life, in patients with chronic diseases.

In Portugal, psychological studies that address the impact of urinary incontinence on quality of life are scarce. Based on the model of Liveneh on the adaptation and adjustment to a chronic disease or condition,^{31,32} psychological morbidity (reaction to the problem), sexual satisfaction and coping strategies (contextual variables) were analyzed as predictors of quality of life. Also, differences in sexual satisfaction, psychological morbidity and coping strategies, according to the severity of urine loss, were also analyzed.

METHODS

Eighty women diagnosed with UI were followed in the Physical and Rehabilitation Medicine Unit in a major Hospital in the North of Portugal. Inclusion criteria included: being an adult woman diagnosed with UI and having sexual activity. Participation was voluntary.

Participants

Woman's age ranged from 27 to 80 years old, with a mean age of 45.59 years old (SD=12.04). 71.3% of women had

only four years of school education, 13.8% had ten years of education and 13.8% a university degree. Regarding the type of UI, 75% presented SUI, 17.5%, UUI and 7.5% MUI. 11.3% had surgery for UI.

Measurements

- Incontinence Quality of Life (I-QOL) consists of 22 items grouped into three domains which are: avoidance and limiting behaviors with eight items, psychosocial impacts with nine items, and social embarrassment with five items. Higher scores represent better quality of life. In the current study, the Cronbach alpha was .95.
- Satisfaction with Sexual Relationship Questionnaire (SSRQ)^{34,35} consists of 14 items and two domains: sexual relationship (eight items) and confidence (six items). The confidence domain has two subscales: self-esteem (four items) and overall relationship (two items). A high score indicates higher sexual satisfaction. In the current study, Cronbach's alpha was .97.
- Hospital Anxiety and Depression Scales (HADS):^{36,37} consists of two subscales, one measuring anxiety, with seven items, and one measuring depression, with seven items, which are scored separately. A high score indicates greater psychological morbidity. A score between 0 and 7 is "normal", between 8 and 10 is "mild", between 11 and 14 is "moderate" and between 15 and 21 is "severe".³⁸ In the current study, Cronbach's alpha was .78 for anxiety and .67 for depression.
- Brief Cope^{39,40} consists of 28 items and fourteen domains: active coping, planning, positive reinterpretation, acceptance, humor, religion, seeking of emotional support, seeking of instrumental support, distraction, denial, expression of feelings, substance use, behavioral disengagement and self-blame. These subscales, each one with two items, are separately scored. In the current study, Cronbach's alpha ranged from .51 to .97, as in the original version. Two of the subscales were removed: planning and seeking instrumental support, due to low internal consistency (alpha below .70).⁴¹

Data analyses

To test differences between the groups, the Mann-Whitney tests with Bonferroni correction were used. To find the best predictors of quality of life, hierarchical regression (Enter method) was performed. To find the best coping strategies that predicted quality of life, a multiple linear regression was used with the coping subscales that were highly correlated with quality of life introduced as predictors.

RESULTS

Differences between sexual satisfaction, psychological morbidity and coping according to the severity of urine loss

The results revealed significant differences on quality of life between women who reported loss of urine as mild *versus* moderate, mild *versus* severe and moderated *versus* severe ($\chi^2(2) = 29.61, p < .001$). Women with a higher quality of life were those who reported their symptoms of urine loss as mild or moderated.

The results revealed significant differences in sexual satisfaction between women who reported loss of urine as mild *versus* severe ($\chi^2(2) = 7.38, p < .05$), use of religion ($\chi^2(2) = 7.67, p < .05$) and self-blame ($\chi^2(2) = 6.81, p < .05$). So, the less severe symptoms of urine loss, the greater was sexual satisfaction, as well as less use of religion and self-blame as coping strategies. Differences were also found on expression of feelings in women who reported loss of urine as moderate *versus* severe ($\chi^2(2) = 7.57, p < .05$). Women who reported loss of urine as severe used more expression of feelings to deal with the UI. Finally, there were differences between women who reported loss of urine as mild *versus* severe as well as moderated *versus* severe on the use of denial ($\chi^2(2) = 14.64, p < .01$) and the use of distraction as coping strategies ($\chi^2(2) = 15.60, p < .001$). Therefore, women who perceive the symptoms of urinary loss as severe use more denial and distraction as coping strategies.

There were no significant differences in the remaining variables (Table 1).

Predictors of quality of life

Age, type of UI, psychological morbidity and sexual satisfaction predicted quality of life $F(5,74) = 14.33, p < .001$, and the model explained 49% of the variance. Women with UI who were more satisfied with their sexual relationships showed a better quality of life ($\beta = .55, t = 5.22, p < .001$), and women with SUI (compared to women with UUI) reported better quality of life ($\beta = -.17, t = -2.02, p < .05$) (Table 2).

TABLE 2 Predictors of quality of life.

	R ² (R ² Aj)	Models	β	T
Block 1				
Age	.04 (.01)	F(2,77) = 1.57	-.08	-.72
Type of UI			-.17	-1.49
Block 2				
	.49 (.46)	F(5,74) = 14.33***	.10	1.14
Age				
Type of UI			-.17	-2.02*
Anxiety			-.09	-.84
Depression			-.11	-1.07
Sexual satisfaction			.58	5.52***

Note: ***p < .001; *p < .05

TABLE 1 Differences between sexual satisfaction, psychological morbidity and coping according to the severity of urine loss.

	Mild (n=22) Mean rank	Moderate (n=39) Mean rank	Severe (n=19) Mean rank	$\chi^2(2)$
Quality of life	57.07	42.23	17.76	29.61***
Sexual satisfaction	48.64	41.49	29.05	7.39*
Anxiety	34.48	42.13	44.13	2.15
Depression	37.77	41.08	42.47	.47
Coping strategies				
Active coping	41.34	35.71	49.37	4.95
Seeking of emotional support	38.48	39.71	44.47	.83
Religion	33.82	38.50	52.34	7.67*
Positive reinterpretation	47.75	37.86	37.53	3.37
Self-blame	30.66	42.62	47.55	6.81*
Acceptance	43.59	41.44	35.00	1.84
Expression of feelings	38.39	35.76	52.68	7.57*
Humor	46.16	36.08	43.03	3.43
Behavioral disengagement	31.70	44.83	41.79	5.24
Denial	30.09	38.60	56.45	14.62**
Distraction	28.55	39.83	55.71	15.60***
Substance use	37.50	42.68	39.50	3.57

Note: ***p < .001; **p < .01; *p < .05

Coping strategies as predictors of quality of life

Less denial ($\beta = -.51, t = -4.43, p < .001$), less distraction ($\beta = -.22, t = -2.08, p < .05$) and less use of religion ($\beta = -.17, t = -2.03, p < .05$) predicted better quality of life. The regression model explained 54% of the variance ($F(5,74) = 17.36; p < .001$) (Table 3).

TABLE 3 Coping strategies as predictors of quality of life.

	R ² (R ² Aj)	F(5,74)	β	t
Denial	.54 (.51)	17.36***	-.51	-4.43***
Distraction			-.22	-2.08*
Self-blame			-.06	-.54
Expression of feelings			-.07	.74
Religion			-.17	-2.03*

Note: *** $p < .001$; * $p < .05$

DISCUSSION

The results are in accordance with the literature since women with severe UI report greater impairment of quality of life,⁴² which means that the severity of urine loss is associated with decreased quality of life,^{13,43} and women who perceive UI as mild report greater loss of urine during sexual activity.⁴⁴ Studies on coping strategies in UI are few. However, the study of Koenig et al.⁴⁵ found that some individuals depend strongly on religious beliefs and practices to relieve stress, maintain self-control and hope. Therefore, it comes as no surprise that the severity of UI may lead women to feelings of anxiety, irritability and a greater need for expression of emotions. In the study of Wilson⁴⁶ patients used denial to reduce the distress and to better cope with situations that generated stress. According to Carver et al.,⁴⁷ individuals have the support of relying on different activities to distract the stressor that is interfering with well-being.

In the current study, women with UI whose sexual life was gratifying showed a better quality of life as well as women with SUI. These findings, when compared to women with UUI, are in accordance with the literature. In fact, SUI when compared to UUI, does not affect women’s quality of life significantly.⁴⁸ In fact, this type of UI, allows women to find other alternatives, knowing the activities that demand more loss of urine.⁴⁹ Regarding sexual satisfaction, studies found that when the loss of urine occurs during sexual intercourse, it may lead to disharmony in the couple, avoidance of sexual activity, embarrassment and shame, impairing quality of life.^{50,51}

Results showed that less denial, distraction and use of religion were predictors of quality of life. Although to our

knowledge, no study has assessed the impact of these particular coping strategies on UI, a study with chronic patients, such as HIV positive women, showed that the use of denial, as a coping strategy, was associated with lower quality of life.⁵² Distraction may also be non-adaptive to disease.⁵³ Also, in patients with cystic fibrosis, high distraction was associated with a worse quality of life.²⁶ The study of Pargament et al.²⁸ showed that negative religious coping was associated with less quality of life as well as well-being.

LIMITATIONS

The present study has some limitations. The sample was only collected in one major central hospital. Two subscales of the brief Cope were not included in the hypothesis testing due to their low internal consistency. The instruments used were all self-report. Future research should assess social support and body image as mediators in the relationships between sexual satisfaction and quality of life, in women with UI in larger samples.

It would also be interesting, to evaluate quality of life, sexual satisfaction, psychological morbidity and coping strategies according to the type of treatment for UI: different behavioral treatments (behavioral change, pelvic muscle rehabilitation) *versus* surgery and pharmacological treatment and take in consideration women that did the surgery to correct their urine loss problem, but with no success, and compare them with those that never underwent surgery. Finally, it would be important to know the impact of UI on the professional and physical activities of young women, in particular.

CONCLUSION

The results showed that women with higher quality of life, sexual satisfaction and less use of religion and self-blame as coping strategies to deal with the UI report their symptoms of urine loss as mild or moderate, while women with SUI, report high sexual satisfaction and less use of denial, distraction, and use of religion (coping strategies) and higher quality of life. Therefore, intervention on health promotion with these women should include their partners, since sexual satisfaction is affected, in order to help the couple to better cope with the UI.

Health professionals should also be alert by how much the UI is affecting the patient’s quality of life and provide emotional support, breaking the stigma associated with loss of urine and control. When necessary, health professionals should refer these women for couple’s therapy so they can get better adjusted and develop effective coping strategies to deal with urinary incontinence and their impact on the couple’s intimacy.

RESUMO

Qualidade de vida em mulheres com incontinência urinária.

O objetivo deste estudo foi analisar a relação entre variáveis clínicas, psicológicas, sociodemográficas e de qualidade de vida em mulheres com incontinência urinária. A amostra foi composta de 80 mulheres com diagnóstico de incontinência urinária (IU), seguido em um Hospital Central do Norte de Portugal. As participantes responderam: *Incontinence Quality of Life (I-QOL)*; *Satisfaction with Sexual Relationship Questionnaire (SSRQ)*; *Hospital Anxiety and Depression Scales (HADS)* e o *Brief Cope*. Os resultados revelaram que as mulheres com uma maior qualidade de vida consideraram seus sintomas de perda de urina como leves ou moderados, em comparação àquelas com perda de urina grave. A perda de urina menos grave foi associada à maior satisfação sexual e menos uso de religião e autoculpabilização como estratégias de enfrentamento. Em termos de enfrentamento, as mulheres que consideraram a perda de urina como grave expressaram mais sentimentos em relação à IU. Incontinência urinária de esforço, alta satisfação sexual e menos uso da negação, distração e religião, como estratégias de enfrentamento, previram maior qualidade de vida. De acordo com os resultados, a IU tem um impacto na satisfação e na qualidade de vida sexual das mulheres. Assim, os programas de intervenção devem visar a essas mulheres, incluindo seus parceiros, ajudando-as a adaptar-se à sua condição e ensinar-lhes estratégias eficazes de enfrentamento, a fim de melhorar sua satisfação sexual e qualidade de vida.

Palavras-chave: incontinência urinária, qualidade de vida, satisfação sexual, morbidade psicológica, estratégias de enfrentamento.

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