

The Psycho-Social Impact of Urinary Incontinence on the Quality of Life among Kuwaiti Women with Type 2 Diabetes Mellitus

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Abstract

This study was conducted to determine the psycho-social impact of urinary incontinence (UI) on the quality of life of 250 Kuwaiti women with type 2 diabetic mellitus (DM). A survey method, using a 33-item 5-point Likert scale Arabic questionnaire adapted from the King's Health Questionnaire (KHQ), was employed for data collection from February to May, 2014 while all the participants were receiving treatment for UI at a specialized urology center in Kuwait. Participants with UI and a co-morbidity of type 2 DM and obesity were 20 to 65 years old. Results showed the following variables were statistically significant for frequency of urine leak: Age was ($\chi^2 = 36.877$, $df = 3$, $P \leq 0.000$). Parity showed nulliparous women reported less urine leak compared to parous women: Chi-square was ($\chi^2 = 24.83$, $df = 12$, $P \leq 0.016$). Type 2 DM for more than 3 years duration had the highest incidence of several leaks per day. BMI of above 25 kg/m² caused daily urine leak: Chi-square ($\chi^2 = 17.912$, $df = 9$, $P \leq 0.036$). Participants' self reports of good general health were those who leaked urine either 2 - 3 times weekly or occasionally. Finally, the impact of incontinence on their lifestyle was reported as extreme by 128 (51.2%), and 6 (2.4%) reported little or no impact on their quality of life: Chi-square was ($\chi^2 = 52.392$, $df = 18$, $P \leq 0.000$). In conclusion, this study showed a clear correlation between UI and reduced quality of life. Midwives are well positioned to correct the myth that UI is an inevitable byproduct of childbearing. Midwives should explain to all pregnant women how childbirth can be a risk factor and provide anticipatory guidance by teaching preventive measures like pelvic floor exercises before and after delivery. Family members should assist sufferers in coping with their challenges by dispelling any form of stigmatization, joining them in practicing pelvic floor exercises, and encouraging, empathizing and supporting them emotionally.

Keywords

Urinary Incontinence, Mixed Incontinence, Stress Incontinence, Urge Incontinence, Overactive Bladder, Quality of Life, Diabetes Mellitus, Obesity

1. Background

This is the second part of a previous study reported on the prevalence of urinary incontinence (UI) among Kuwaiti women with type 2 diabetes mellitus (DM) [1]. This paper will report the findings of the analysis of the psycho-social impact of UI among 250 Kuwaiti women, aged 20 - 65 years, with type 2 DM using the King's Health Questionnaire. Mixed urinary incontinence which is the combination of stress incontinence and overactive bladder was reported as the prevalent type of incontinence experienced by Kuwaiti women with type 2 DM [1]. Researchers have postulated that patients with DM have a high risk for developing severe UI [2] [3], and women with mixed urinary incontinence have been reported to have 2.5-fold greater odds of experiencing greater negative impact on their overall quality of life compared to those with other types of urinary dysfunction [4] [5]. The Simon Foundation for promoting continence and changing lives has drawn an association between obesity/overweight and UI. They have explained that incontinence results from the extra weight around the abdomen which puts undue pressure on the pelvic floor muscles, consequently resulting in the pelvic floor muscles sagging, getting weak, and leading to accidental urine leak [6]. Obesity, as co-morbidity with type 2 DM, has also been implicated as high risk for UI because type 2 DM damages the nerves that control the bladder [6]. It is therefore expected that the combined impact of type 2 DM, obesity and mixed urinary incontinence is most likely to produce a devastating effect on the quality of life of these patients [1]. Similar findings were reported by Nazzal Z *et al.* (2020) who conducted a cross-sectional study among 165 Palestinian women with type 2 DM aged 30 - 83 years. They reported that 92 (55.6%) had urinary leak on a daily and weekly basis; 63 (40%) of them reported that they were extremely bothered by the condition and 58 (35.2%) stated that their daily routine was greatly affected [7]. In contrast, studies from Saudi Arabia reported that women with UI did not report enough adverse impact of their illness on their general health to warrant them seeking treatment [8]. The women believed that UI is not life threatening, and they also considered it as a normal process of childbirth and aging, and therefore an inevitable consequence of childbearing. These beliefs and myths about incontinence being normal and that all women will eventually be affected at one time or the other in their lives, especially during pregnancy, childbirth and old age, have made some women endure the resultant low quality of life and not seek medical treatment [8]. UI is reported to affect 30% - 60% of women as a result of pelvic floor injury [9]. However, it is also well documented in midwifery and maternity nursing textbooks

that pelvic floor exercise (Kegels exercise) for as long as 6 weeks after delivery helps to strengthen the pubococcygeal muscles and urethral sphincter which invariably help in urinary control and prevent stress incontinence [10]. Kegels exercise also helps to tighten vaginal muscles after childbirth thus increasing sexual enjoyment [10]. Mendes *et al.* 2016, did an integrative review on major databases on non-pharmacological and non-surgical treatments for female urinary incontinence and reported that the pelvic floor muscle training (PFMT) exercise was the main way to treat urinary incontinence [11].

Theories relevant to the understanding of urinary incontinence can be found in the fields of exercise physiology, psychology and sociology. Pelvic floor muscle exercises combined with bladder training have been reported as two techniques underpinning the principles of social cognitive theory and operational conditioning as the successful treatment modalities for UI [12].

The sociology theory relevant to UI is Ervin Goffman's theory of social stigma, which describes stigma as a behavior which is socially discrediting in a particular way by others [13]. The odor of urine on the body and clothes portrays a lack of personal hygiene and uncleanliness, thus stigmatizing the individuals [14].

Researchers on adolescents with urinary incontinence have reported a range of adverse psycho-social problems experienced by incontinent adolescents which includes shame, and stigma even after the continence problem have been resolved. During adolescence, when body image and identity are formed, and peer acceptance is of paramount importance, the stigma associated with urinary incontinence is most likely to impact their lifestyle even into adulthood [15].

Urinary incontinence can impact a woman's life in different domains: psychological/emotional health, social, sexual health, resulting in poor health perception, social limitations, isolation and rejection from family and social relationship, physical health including sleep deprivation, lack of energy and co-morbid psychiatric disorder like depression [1] [16] [17]. Psychological/emotional functions and limitations have been investigated by researchers. Hung KJ *et al.* (2014) investigated a US national cohort of women aged between 54 and 65, with UI, and reported that UI was associated with increased risk for depression and work disability, however, the women studied retained their jobs despite their incontinence [18]. Other studies that investigated mental health challenges associated with incontinence also confirmed depression as co-morbidity [19] [20].

Aliterature search for available tools for the measurement of stigmatization as a result of urinary dysfunctions revealed eleven tools, out of which five had questions that addressed either self stigma, perceived stigma or both [21]. The Incontinence Impact Questionnaire (IIQ) addressed the impact of stress on daily lives and emotions including physical activities, travel, social relationships, and emotional health [22]. The Incontinence Outcome Questionnaire (IOQ) included one question about self stigma related to change in feelings about their body [23]. The Incontinent Quality of Life (I-QOL) included three questions on self stigma and eight questions on perceived stigma [24]. Two questions were in-

cluded in the King's Health Questionnaire (KHQ) addressing stigmatization and reduced self esteem as a result of urinary incontinence [25].

Reviewing the effect of urinary incontinence on personal relationship, sexual and intimate relationship and satisfaction, the findings revealed that women who leak urine during sexual activity avoid orgasm for fear of leaking urine, and some avoid sexual intimacy altogether [26]. Mota RL (2017) reported that lower frequency of sexual activities and low sexual and global satisfaction indices are found among incontinent women [27]. Chu, *et al.* (2015) reported that severe urinary incontinence is associated with decreased libido, vaginal dryness, orgasmic dysfunction and dyspareunia [28]. Erectile function in partners/spouses of 30 sexually active women with UI attending a urology outpatient clinic was compared with partners/spouses of a control group of 30 sexually active continent women by Keles *et al.* (2016). The result revealed that the difference in erectile function in both groups was not statistically significantly, although 20 of the 30 incontinent women reported urinary leakage during sexual intercourse. None of the partners of the women in either group had consulted any physician with complaint of erectile dysfunction [29].

The impact of incontinence on the employment of incontinent women was explored by Sinclair and Ramsy (2011). They reported that UI at the workplace causes occupational restrictions as a result of anxiety about wetting themselves and smelling of urine and frequent toilet breaks which interrupt their work and affect their concentration and ability to perform their tasks adequately [30]. UI is said to have physical and hygienic impact, and untreated incontinence may be associated with urinary tract infection, sleep disturbances and depression [31]. Disruption of skin integrity permitting microbes like staphylococcus, *Candida albicans* to invade the skin, cellulitis and other skin infections have also been reported [32].

The effect of UI on insomnia was investigated by some researchers. Sleep contributes to both physical and mental health, quality of life and well-being in all stages of life. UI was found to disrupt sleep at night and cause sleepiness during the day, confirming that continuous sleep disorder inevitably may lead to poor quality of life [33]. Avery *et al.* (2013) discussed the exhaustion experienced by incontinent patients as a result of nocturnal enuresis [17]. Pinto-Diaz *et al.* (2019) explored strategies used by their participants to adapt or cope with the psycho-social distress of incontinence before they sought medical help. Most of them modified their habits, routines and social life to avoid accidental leaks in public. Some wore absorbent products like sanitary pads and diapers, in addition to applying fragrances and perfumes on their body and clothes to disguise the odor of urine [31].

2. Study Objectives

The study was to explore the psycho-social impact of urinary incontinence on the quality of life of two hundred and fifty Kuwaiti women with type 2 Diabetes

mellitus.

Research question:

Does Urinary Incontinence have a negative impact on the quality of life on Kuwaiti women with type 2 Diabetes mellitus?

3. Methods

The methodology has been reported in detail in a previous study titled, the prevalence of UI among Kuwaiti women with type 2 DM published in 2017 [1]. Briefly, the study design was descriptive; a convenient random sample of 250 participants using a 33-item Likert scale Arabic questionnaire was used. Twelve of the questions explored the demographic characteristics, risk factors and symptoms present in the participants. The remaining 21 items were adapted from the King's Health Questionnaire (KHQ), the questions were to explore their psycho social reaction to their UI symptoms which are in six categories: role limitations (activities of daily living), physical limitations, social limitations, personal relationships including family life, emotional aspects, sleep/energy. Five scales were used for measuring the impact of each category, from the least to the most severe impact as follows: "not at all, little, moderate, very much and extreme" [25].

Data collection was from February to May, 2014 at the Sabah Al Ahmed urology center Kuwait. This 97 bedded specialized tertiary health care center was opened in 2013. It is fully equipped for diagnosing and treatment of urology cases in Kuwait. Inclusion criteria: participants must be of Kuwaiti nationality, with type 2 DM, aged between 20 - 65 years and complaining of urinary incontinence and willing to participate in the study, conversely, the exclusion criteria, included non-Kuwaiti women, Kuwaiti women who are non-diabetic, older than 65 years, younger than 20 years and those not willing to participate [1].

Ethical clearance was obtained from the institutional ethical committee [1].

Data collection: Arabic speaking research assistants distributed the questionnaires to willing participants, explained the purpose of the study, remained in the waiting room while they completed the questionnaires, answered their questions and collected the completed questionnaires [1].

Data analysis was by using Statistical Package for Social Sciences (SPSS) version 24 for windows. Frequencies and percentages were used for analyzing descriptive data, while Pearson's Chi-square was used for non-parametric data. P values of 0.05 were considered significant.

4. Results

Table 1, describes the demographic characteristics of participants in relation to frequency of urine leak. The age of the participants ranged from 20 to 65 years. Age had a significant Pearson's Chi-square result for frequency of urine leak ($\chi^2 = 36.877$, $df = 3$, $P \leq 0.000$). Comparing their types of delivery, the majority of the women were multiparous 134 (54%), followed by primiparous women 73 (29%).

Table 1. Demographic characteristics of participant with frequency of urine leak.

Variables	Frequency of Urine Leak (N = 250)					Chi-square
	Several times daily	Once daily	2 - 3 times weekly	Occasionally	Total	
Age group	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	
20 - 35	6 (2.4)	14 (5.6)	5 (2.0)	39 (15.6)	64 (25.6)	
36 - 50	22 (8.8)	10 (4.0)	26 (10.4)	40 (16.0)	98 (39.2)	P = 0.00 df 3 value 36.877
51 - 65	31 (12.4)	12 (4.8)	28 (11.2)	17 (6.8)	88 (35.2)	
Total	59 (23.6)	36 (14.4)	59 (23.2)	96 (38.4)	250 (100)	
Marital status	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	
Married	46 (18.4)	29 (11.6)	44 (17.6)	83 (33.20)	202 (80.8)	
Single	9 (3.6)	2 (0.8)	10 (4)	6 (2.4)	27 (10.8)	P = 0.221 df 6 value 8.245
Divorce	4 (1.6)	5 (2.0)	5 (2.0)	7 (2.8)	21 (8.4)	
Total	59 (23.6)	36 (14.4)	59 (23.2)	96 (38.4)	250 (100)	
Type of delivery	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	
Not applicable/ nulliparous	7 (2.8)	1 (0.4)	10 (4.0)	6 (2.4)	24 (9.6)	
Normal vaginal delivery	24 (9.6)	13 (5.2)	22 (8.8)	47 (18.8)	106 (42.4)	
Complicated vaginal delivery	10 (4.0)	18 (7.2)	15 (6.0)	20 (8.0)	63 (25.2)	P = 0.016 df 12 value 24.832
Cesarean section	18 (7.2)	4 (1.8)	12 (4.8)	22 (8.8)	56 (22.4)	
Normal vaginal & cesarean	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.4)	1 (0.4)	
Total	59 (23.6)	36 (14.4)	59 (23.2)	96 (38.4)	250 (100)	
Employment/ status	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	
Yes	33 (13.2)	21 (8.4)	35 (14.0)	71 (28.4)	160 (64.0)	
No/House wife	26 (10.4)	15 (6.0)	24 (9.6)	25 (10.0)	90 (36.0)	P = 0.076 df 3 values 6.861
Total	59 (23.6)	36 (14.4)	59 (23.2)	96 (38.4)	250 (100)	

Nulliparous diabetic women were the least affected by urinary incontinence. There was a statistical significant Chi-square result for frequency of leak ($\chi^2 = 24.832$, $df = 12$, $P \leq 0.016$). Marital status and employment status were not statistically significant. However, more married women were affected with incontinence than combined single and divorced women. A majority of the women were employed 160 (64%), compared to 90 (36%) unemployed women.

The incontinence episode frequency/urine leak was used to estimate the se-

verity of urinary incontinence. It ranged from several times daily as the most severe to occasional leak as the least severe of urinary incontinence. **Table 2**, illustrates the results of this study, which revealed that type 2 DM for more than 3 years duration showed the highest number of subjects 28 (11.2%) experiencing

Table 2. Effect of co-morbidity on the frequency of urinary leakage.

Variables	Frequency of Urine Leak (N = 250)					Chi-square
	Several times daily	Once daily	2 - 3 times weekly	Occasionally	Total	
Duration of type 2 DM	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	
<1 year	7 (2.8)	15 (6.0)	6 (2.4)	46 (18.4)	74 (29.6)	
1 - 3 years	24 (9.6)	6 (2.4)	24 (9.6)	28 (11.2)	82 (32.8)	P = 0.000 df 6 value 41.205
>3 years	28 (11.2)	15 (6.0)	29 (11.6)	22 (8.8)	94 (37.6)	
Total	59 (23.6)	36 (14.4)	59 (23.2)	96 (38.4)	250 (100)	
Body Mass Index (BMI)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	
<20	0 (0.0)	1 (0.4)	1 (0.4)	1 (0.4)	3 (1.2)	
20 - 25	30 (12.0)	19 (7.6)	42 (16.8)	56 (22.4)	147 (58.8)	P = 0.036 df 9 value 17.912
26 - 30	19 (7.6)	16 (6.4)	14 (5.6)	32 (12.8)	81 (32.4)	
31 - 40	10 (4.0)	0 (0.0)	2 (0.8)	7 (2.8)	19 (7.6)	
Total	59 (23.6)	36 (14.4)	59 (23.2)	96 (38.4)	250 (100)	
Self report of their perception of general health	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	
Very good	0 (0.0)	6 (2.6)	2 (0.8)	19 (7.6)	27 (10.8)	
Good	15 (6.0)	16 (6.4)	14 (5.6)	36 (14.4)	81 (32.4)	
Fair	31 (12.4)	13 (5.2)	34 (13.6)	35 (14.0)	113 (45.2)	P = 0.000 df 15 value 49.538
Poor	13 (5.2)	0 (0.0)	9 (3.6)	5 (2.0)	27 (10.8)	
Very poor	0 (0.0)	1 (0.4)	0 (0.0)	1 (0.4)	2 (0.8)	
Total	59 (23.6)	36 (14.4)	59 (23.2)	96 (38.4)	250 (100)	
The impact on life style	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	
Extremely	15 (6.0)	26 (10.4)	28 (11.2)	59 (23.6)	128 (51.2)	
Very much	23 (9.2)	9 (3.6)	25 (10.0)	31 (12.4)	88 (35.2)	
Moderately	19 (7.6)	1 (0.4)	5 (2.0)	3 (1.2)	28 (11.2)	P = 0.000 df 18 value 52.392
A little	2 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.8)	
No impact at all	0 (0.0)	0 (0.0)	1 (0.4)	3 (1.2)	4 (1.6)	
Total	59 (23.6)	36 (14.4)	59 (23.2)	96 (38.4)	250 (100)	

several leaks per day, compared to duration of less than one year and 1 - 3 years with 7 (2.8%) and 24 (9.6%), respectively. Daily leaks were reported by 15 (6%), 6 (2.4%) and 15 (6.0%) for less than 1 year, 1 - 3 years and more than 3 years, respectively. Twenty nine (11.6%) of more than 3 years duration of DM reported that they experienced 2 - 3 times weekly leaks and 22 (8.8%) of 3 years duration of DM with occasional leak. The majority of the DM subjects, 46 (18.4%), with less than one year duration had only occasional urine leak. Pearson's Chi-square for duration of type 2 DM and incontinence episode frequency was statistically significant ($\chi^2 = 41.205$, $df = 6$, $P \leq 0.000$).

Body Mass Index (BMI) is used for the grading of obesity, less than 25 kg/m² is considered normal, 25 - 30 kg/m², is overweight and above 30 kg/m² is obese. The result in **Table 2** describes the severity of urinary incontinence in normal, overweight and obese subjects according to BMI. Of the 150 (60%) subjects who were within normal BMI, 30 (12%) were incontinent several times daily, 20 (8%) were incontinent once daily, 43 (17.2%) and 57 (22.8%) were incontinent 2 - 3 times weekly and occasionally, respectively. 29 (11.6%) of overweight and obese subjects reported leaking urine several times daily, 16 (6.4%) leaked urine daily, the same number leaked urine 2 - 3 times weekly, while 39 (15.6%) leak urine occasionally. Chi-square was significant ($\chi^2 = 17.912$, $df = 9$, $P \leq 0.036$).

The psycho-social impact of urinary incontinence was evaluated by self report of subjects' perception of their general health, the impact of incontinence on their lifestyle, including activities of daily living, physical limitations, social limitations, personal relationship, emotional aspect and sleep/energy. A majority of the subjects reported that their general health was either good 81 (32.4%), fair 113 (45.2%) or poor 27 (10.8%). While only 2 (0.8%) reported very poor health, none of those with several times per day leak reported very good health. A majority of those who reported very good, 19 (7.6%) were those with occasional urine leaks. Chi-square was statistically significant ($\chi^2 = 49.5387$, $df = 15$, $P \leq 0.000$).

The impact of their condition on their lifestyle was reported as extreme by 128 (51.2%) of the participants in the following frequency of leak: 15 (6%) of several times a day leak, 26 (10.4%) of once daily leak, 28 (11.2%) of 2 - 3 times weekly leak and 59 (23.65) occasional leak. Only 6 (2.4%) reported little or no impact on their lifestyle, and they were those with 2-3 times or occasional leaks. Collectively only 6 (2.4%) reported little or no impact on their lifestyle. Pearson's Chi-square was ($\chi^2 = 52.392$, $df = 18$, $P \leq 0.000$).

Table 3, shows that more than half of our respondents, 127 (52%), admitted that incontinence had moderate, much and even extreme effects on their activities of daily living and physical limitations. In the social limitations domain, 91 (36%), 54 (22%) and 24 (9%) admitted that urinary incontinence impacted their lifestyle moderately, very much and extremely, respectively. Of all the domains personal relationship and sleep had the highest score of extreme impact on their lifestyle, 46 (18%) and 45 (20%), respectively. 75 (30%) expressed that urinary incontinence affected their relationship with their spouses, their sex life and family

Table 3. Impact of incontinence on participants' major psycho social domains.

Domains	Not at All		Little		Moderate		Very Much		Extreme	
	N	%	N	%	N	%	N	%	N	%
Role limitations (Activities of daily living)	37	14	86	34	94	38	32	13	1	0.4
Physical limitations	42	17	80	32	93	37	34	13	1	0.4
Social limitations	24	10	57	23	91	36	54	22	24	9
Personal relationship	12	5	27	11	75	30	90	36	46	18
Emotional aspect	3	1	41	16	91	36	84	33	31	12
Sleep/energy	2	0.8	35	14	98	39	70	28	45	20

life. Only 3 (1%) responded that urinary incontinence did not affect them emotionally, and 41 (16%) admitted that it had little effect on their emotional state. Sleep/energy were reported to be extremely affected by 45 respondents (20%), very much affected by 70 respondents (28%) and moderately affected by 98 respondents (39%). Only 37 respondents (14.8%) reported that sleep/energy was not affected at all or affected just a little.

5. Discussion

The research question of this study is: "Does Urinary Incontinence have a negative impact on the quality of life on Kuwaiti women with type 2 Diabetes Mellitus?" The results derived from this study are in accordance with existing literature findings suggesting that the coexistence of type 2 diabetes and mixed urinary incontinence severely impacts the quality of life of affected women [1] [4] [5] [7] [34]. Altaweel & Alharbi (2012) reported that Saudi Arabian women did not find urinary incontinence serious enough to seek medical treatment [8]. Their reaction may be attributed to two factors. Firstly, their participants were not exclusively women with type 2 DM. Secondly, the impact of the restrictive lifestyle of women living in Saudi Arabia, which was described as the "least-free country in the world especially for women" [35]. Saudi women are compelled to stay at home most of the time and social isolation is the norm there rather than the exception, therefore additional social isolation has little or no impact on their life. This is unlike women in Kuwait, who enjoy more social freedom, and therefore may feel the impact of any type of self isolation because of the stigma of staining or odor of urine on their clothes and body.

The psycho-social impact of urinary incontinence in these women can be challenging, depending on the severity, since the odor of urine which is quite distinct and embarrassing may be interpreted as poor personal hygiene by others [13] [14] [36]. This will ultimately result in lower self esteem and lower quality of life. Rationalizing incontinence by societal acceptance that it is gender related an inevitable consequence of having babies, heavy work and age, may make the stigma bearable and ease patients' ability to cope with the symptoms. However, it does not prevent the reduction in quality of life. Prevention is said to be better

than cure, therefore teaching behavior modification programs like pelvic floor exercises in whatever name, be it Kegels or Pelvic floor muscle training/exercise (PFMT), to all pregnant women as preventive measure for urinary incontinence after delivery should be the first line of intervention. PFME employs the principles of cognitive learning concepts and exercise physiology. The goal being to increase muscle bulk and tone, thereby improving relaxation and control of the pelvic muscles. In the event that urinary incontinence already exists, bladder training, which follows principles of accumulating urine in the bladder and emptying approximately every four hours, is reported as an effective treatment modality when combined with pelvic floor exercises [12]. Management of incontinence by wearing of absorbent products like sanitary towels or diapers may appear to be a quick fix or an easy way out. However, this contributes to the stigma of incontinence, because of the odor of urine on the body and clothes, and the spraying of fragrances and perfumes may actually only disguise the smell but not improve the hygienic consequences like skin rashes and excoriations.

There are other treatment modalities for certain types of urinary incontinence like overactive bladder (OAB) where pharmacotherapy/anticholinergic drugs that help to relax the bladder muscles and allow it to increase the capacity of urine it can hold [37]. However, since this paper is on the psycho-social impact of urinary incontinence, non-invasive psycho-social interventions have been the focus of our discussion.

The combination of type 2 DM and urinary incontinence is a chronic and costly disorders to manage [38]. The age of the sufferer affects their attitude towards the disclosure of the illness. Younger people are more likely to conceal their incontinence problem for fear of being stigmatized and may not seek medical treatment early [15]. On the other hand older people who may also have other underlying illnesses are more likely to seek medical treatment earlier.

This study showed that 75 (30%) of our participants expressed that urinary incontinence negatively affected their personal, family relationship, sexual and intimate relationship and this is consistent with the findings of Mota, R. L. (2017), who reported that his subjects feared that incontinence during sexual intercourse will affect their sexual function and relationship. Social limitation includes isolation and rejection from family and associates, resulting in poor health perception, and may lead to a comorbid psychiatric disorder of depression and reduced quality of life.

The result of this study showed that sleep/energy were reported to be extremely affected by 45 respondents (20%), very much affected by 70 respondents (28%) and moderately affected by 98 respondents (39%). Only 37 respondents (14.8%) reported that sleep/energy was not affected at all or affected just a little. These findings are similar to those in the literature on the impact of incontinence on sleep/energy, which finds that urinary incontinence, disrupts sleep at night and causes sleepiness during the day, which leads to a reduction in the energy required to perform jobs effectively. Frequent toilet breaks also affect their concentration and quality of work [17] [33].

6. Limitations

The data for this study was collected by participants' self report of symptoms and reactions to their symptoms. These subjective data may not be entirely accurate; the addition of objective data may need to be employed in future studies. Furthermore, the sample was collected in only one urology hospital; therefore this may not be representative of the entire population. All our participants have co-morbidity of type 2 diabetes mellitus, and some obesity, this is not truly representative of all Kuwaiti women and therefore these findings cannot be generalized to the entire population of Kuwaiti women.

7. Recommendations

Urinary incontinence (UI) also affects substantial proportions of men. Future studies should be undertaken in both men and women, together and separately, using different methodologies and instruments for different age groups.

Further research can be conducted to correlate urinary incontinence and mental health challenges like depression.

8. Conclusion

Urinary incontinence is not a life-threatening condition; however it impacts the lifestyle of the sufferer. Quality of life depends on the combination of physical, social and psychological attributes of the individual. Psycho-social effects of urine leak like anxiety, isolation, low self esteem and depression could worsen the symptoms of urinary incontinence. Nurses should identify these attributes during initial health assessment of these patients and start early interventions to minimize negative impact on their lifestyle and quality of life. Family members, especially spouses or partners, should endeavor to assist sufferers in coping with their incontinence by encouraging or joining them in pelvic floor exercises and dispelling any form of stigmatization or derogatory comments about their incontinence. Instead, they should show more empathy and support.

Conflicts of Interest

No grant was received for this study and no conflict of interest.

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