ISLAMIC UNIVERSITY OF LEBANON

Faculty of Nursing Sciences

Order Nº: 1 /2019

SENIOR PROJECT

In partial fulfillment of the requirement for the completion of the bachelor of sciences program in

NURSING

Effect of Urine Incontinence on the Quality Of Life among Geriatric

Prepared by

Ali tarraf **Mahdi ayoub**

Supervised by

Mrs. Rola Hallal

June. 2019

DEDICATION & ACKNOWLEDGEMENT

We all suggested dedicating our work to the (faculty of nursing sciences) in the

Islamic University of Lebanon-Khaldeh branch

By names we also have the honor to dedicate this research for:

Prof: Dr.Adnan Murad

Head Department: Dr.Taghrid Shaaban

Supervisor: Mrs.Rola Hallal

Students of IUL and all over readers

We would express our special thanks of gratitude to our Dean (Dr.Adnan Murad) as well as our principle (Dr.Taghrid Shaaban) who gave us the golden opportunity to do this project.

We would also like to thank who helped us in finalizing this project within the limited frame time (Mrs.Rola Hallal) and special thanks for all people who collaborated us to achieve this work successfully.

LIST OF TABLES

LIST OF FIGURES

List of Abbreviation:

UI: Urinary incontinence

QOL: Quality of Life

DM: Diabetes Mellitus

HTN: Hypertension

CAD: Coronary Artery disease

Alz: Alzheimar

TABLE OF CONTENTS

Content

ABSTRACT

Urinary incontinence is a serious life issue experienced by most of elderly population, which effect their quality of life. Because UI may cause social isolation, loss of sexual function, and other psychosocial problems, it could have significant impact on patients' psychosocial well-being and QOL. Present study is aimed to evaluate effect of urinary incontinence on the quality of life among geriatric.

OBJECTIVE: The purpose of this study is to assess the elderly persons who experience urinary incontinence and how this issue effect their lifestyle.

PROCEDURE: This cross sectional study from a sample size of 50 hospitalized elderly patient were chosen from two different hospitals in Saida and Beirut. A self-administered questionnaire used to assess the effect of urinary incontinence on the elderly lifestyle. The questionnaire was initially developed in English and the objectives of the study was explained for each participant. Privacy to be well maintained by mentioning no names. Using questionnaire to collect data was the easiest way to cover this number of population and to be coded and analyzed easily.

RESULT: The Socio-demographic results of this project were showed that the age of target population was distributed between 65-70 year old (32%), 71-75 year old (30%), and (38%) above 76. 42% of patients were married. 100% was female clients. 34% of patients were complaining of HTN & DM as a comorbid diseases. 10% of them have great frequent urination and 14% of them have a great urine spotting (drippling) related to activity and 2% related to urgency feeling. Most patient between 40-48% have a lack of social activities, household chore ability and entertainment activities.

CONCLUSION: Findings indicate that elderly patients with UI are more prone to have a worse perceived health on certain domains of QOL that lead to a negative impact on psychosocial outcome.

INTRODUCTION

When examining quality of life among elders, Miller and Hoffman (2006) concluded urinary incontinence had far-reaching medical and coping consequences that adversely impacted elders' quality of life. Urinary incontinence, the involuntary drippling of urine, is one of the major causes for admission into long-term care facilities among elderly clints. (Bell & De Marinis, 2016). Urinary incontinence negatively affects the nursing home resident, the nursing home staff and the nursing home facility. Treatment of urinary incontinence in long-term care settings can increase both resident dignity and long-term care facility image by reducing embarrassing visual signs and unpleasant odors associated with incontinence (Bell & DeMarinis, 2016). Bell & De Marinis (2006) addressed the importance of long-term care nurses to reverse the effects of urinary incontinence in order to ensure quality of life for residents. Many nursing home residents verbalized their fear of embarrassment as a result of soiling personal clothing and offending others. Often this embarrassment leads to a loss of self-esteem among incontinent elders. Urinary incontinence also restricts the individual's social activity due to fear of leaking or not being able to find a toilet. These feelings often inflict profound psychological effect on incontinent long-term care elders and present as humiliation, depression and social withdrawal (Bell & De Marinis, 2016). Little research has been conducted to examine urinary incontinence & quality of life, in long-term care facilities. From this point of view this study was focused on what is the effect of urinary incontinence on the quality of life among elderly in Lebanese society1.1 RESEARCH 1.1OBJECTIVE: The objective of this study is to assess the elderly persons who experience urinary incontinence and how this issue effect their lifestyle.

1.2 HYPOTHESIS: urinary incontinence has a negative effect on the quality of life of the geriatric persons related to physical, psychological and social health.

LITERATURE RESEARCH AND REVIEW

Study number 1 was done in Irag, Koufa July 11 2005 by Bron and Salmon about the impact of urinary incontinence on quality of life of elderly. The Objective of this study was to investigate the impact of urinary incontinence (UI) on health-related quality of life (QOL).

A total of 815 younger than 65 years old completed surveys were used for analysis. The survey included 1 question on difficulty in controlling urination, 3 questions on depression, 3 questions on health, a series of questions regarding comorbid medical conditions, QOL were compared between UI and non-UI groups.

Results: Overall, the prevalence of UI was 42% (20% in men, 22% in women). The UI group was about twice as likely to feel depressed as the non-UI group. The UI group also rated their health more negatively. Results from multiple regressions indicated that UI had a significantly negative impact on all aspects of elderly patient's life. They were shown more depression and have worse perceived health.

Study number 2 done by Suli Shani in September 2014 about relationship between urinary incontinence and quality of life / depression in elderly patients. The study included a total of 109 elderly adults aged 65 years and older, consisting of 50 patients with and 50 patients without UI. Demographic data were recorded and UI was assessed using a questionnaire. The Standardized Mini-Mental State Examination was used to evaluate cognitive function. Depression status was assessed using the Geriatric Depression Scale and quality of life was assessed using Short Form-36 (SF-36) Health Survey scoring. Results were shown there was a strong correlation between depression and UI ($p < 0.0005$). Both the mental and physical scores of the SF-36 quality of life scale were significantly lower in elderly patients with UI than in those without. An increased risk of depression was found in elderly patients with UI compared with those without UI. UI was found to cause a reduction in the physical component score and a reduction in the mental component score; these are statistically significant. Conclusion: UI in elderly adults leads not only the loss of physical abilities, but also to changes in their mental condition.

Study number 4 done by Andrew Stickley in April 8 2017 it was about urinary incontinence, mental health and loneliness among community older adults in Irland. The study investigated

that Urinary incontinence (UI) is associated with worse health among older adults. Data were analyzed from 6903 community-adults aged ≥ 50. Information was obtained on the self-reported occurrence (yes/no) and severity (frequency/activity limitations) of UI in the past 12 months. Loneliness was measured using the UCLA Loneliness Scale short form. Results showed 75% of older community- adults feel from loneliness but this association is largely explained by comorbid mental health problems, in particular, depression.

BACKGROUND

Urinary incontinence (**UI**), also known as **involuntary urination**, is any uncontrolled leakage of urine. It is a common and distressing problem, which may have a large impact on quality of life. It has been identified as an important issue in geriatric health care. The term enuresis is often used to refer to urinary incontinence primarily in children, such as nocturnal enuresis (bed wetting).

Pelvic surgery, pregnancy, childbirth, and menopause are major risk factors. Urinary incontinence is often a result of an underlying medical condition but is under-reported to medical practitioners. There are four main types of incontinence:

- Urge incontinence due to an overactive bladder
- Stress incontinence due to poor closure of the bladder
- Overflow incontinence due to either poor bladder contraction or blockage of the urethra
- Functional incontinence due to medications or health problems making it difficult to reach the bathroom

Stress incontinence

If someone experiences urine leakage when they bounce, cough, or chuckle, they may have urine incontinence that is associated with stress; or in other word stress incontinence. This refers to any physical effort that builds stomach weight and eventually puts weight on the bladder. "Stress" suggests the physical tension related with spillage. Despite the fact that it can be troubling, the condition has nothing to do with emotional stress. Regularly, just a little measure of pee spills

out. In more extreme cases, the weight of a full bladder beats the body's capacity to hold in pee. The spillage happens despite the fact that the bladder muscles are not contracting and you don't want to urinate.

Stress incontinence happens when the urethral sphincter, the pelvic floor muscles, or both have been debilitated or harmed and can't constantly hold in pee. Stress incontinence is separated into two subtypes. In urethral hypermobility, the bladder and urethra move descending when stomach weight rises, and there is no loft like help for the urethra to be packed against to keep it shut." In intrinsic sphincter deficiency, problems in the urinary sphincter interfere with full closure or allow the sphincter to pop open under pressure" (Harvard Health Publishing, 2014). Numerous specialists trust that ladies who have given birth vaginally are well on the way to create pressure/stress incontinence since conceiving an offspring has extended and conceivably harmed the pelvic floor muscles and nerves. For the most part, the bigger the child, the more drawn out the work, the more established the mother, and the more noteworthy the quantity of births, the more probable that incontinence will come about.

Age is similarly a factor in pressure incontinence. As a lady gets older in age, the muscles in her pelvic floor and urethra debilitate, and it takes less weight for the urethra to open and permit spillage. Estrogen can likewise take some part, in spite of the fact that it isn't clear how much. Numerous ladies don't encounter side effects until after menopause (Harvard Health Publishing, 2014).

Overactive bladder (urge incontinence)

On the off chance that you feel a compelling impulse to urinate, notwithstanding when your bladder isn't full, your incontinence may be identified with overactive bladder or, in other terms, urge incontinence (Harvard Health Publishing, 2014). This condition happens in both genders and includes a mind-boggling desire to urinate instantly, where most of the time urine is lost even before reaching a toilet. It should be noted that this type of incontinence, can meddle with work and a social life as a result of the need to continue hurrying to the toilets.

Overactive bladder can come about because of physical issues that shield your body from ending automatic bladder muscle compressions. Such issues incorporate harm to the cerebrum, the

spine, or the nerves stretching out from the spine to the bladder — for instance, from a mischance, diabetes, or neurological illness. Disturbing substances inside the bladder, for example, those created amid a contamination, may likewise cause the bladder muscle to contract. (Harvard Health Publishing, 2014).

Diseases of the urinary tract, bladder, or prostate can cause temporary overactive incontinence. Fractional blockage of the urinary tract by a bladder stone, a tumor (once in a while), or, in men, a developed prostate (a condition known as favorable prostatic hyperplasia, or BPH) can cause desperation, recurrence, and in some cases overactive incontinence (Harvard Health Publishing, 2014). Medical procedure for prostate tumor or BPH can trigger indications of overactive bladder, as can solidifying (cryotherapy) and radiation seed treatment (brachytherapy) for prostate malignancy (Harvard Health Publishing, 2014).

Neurological sicknesses, (for example, Parkinson's infection and various sclerosis) can likewise bring about urge incontinence, as can a stroke. At the point when hospitalized following a stroke, 40% to 60% of patients have incontinence; when they are released, 25% still have it, and after a year, 15% do (Harvard Health Publishing, 2014).

Mixed incontinence

From its name, it’s known that this types holds more than one type of incontinence in it. Mixed incontinence is when the patient suffers from both overactive bladder and stress incontinence. Most women who have UI suffer usually from both types (Harvard Health Publishing, 2014). As for men, they are likely to experience it when they undergo a prostate surgery.

Overflow incontinence

In the event that your bladder never totally discharges, you may encounter pee spillage, with or without wanting to go. Overflow incontinence happens when something shut pee from streaming typically out of the bladder, as on account of prostate expansion that somewhat shuts off the urethra (Harvard Health Publishing, 2014). It can likewise happen in both genders if the bladder muscle winds up underactive (the inverse of an overactive bladder) so you don't want to urinate. In the long run the bladder moves toward becoming overloaded, or enlarged, pulling the urethra

open and enabling pee to spill out. This condition is occasionally associated with diabetes or cardiovascular sickness.

On the off chance that a lady has serious prolapse of her uterus or bladder (implying that the organ has dropped out of its appropriate position), her urethra can progress toward becoming crimped like a twisted garden hose, meddling with the stream of pee (Harvard Health Publishing, 2014).

Functional incontinence

In the event that your urinary tract is working appropriately however different sicknesses or handicaps are keeping you from remaining dry, you may have what is known as functional incontinence (Harvard Health Publishing, 2014). For instance, if a disease rendered you unconcerned about the need to go to the toilet, you would wind up incontinent. Medications, dementia, or dysfunctional behavior can diminish consciousness of the need to discover a toilet.

Regardless of whether your urinary framework is fine, it can be to a great degree troublesome for you to keep away from mishaps on the off chance that you experience difficulty getting to a latrine. This issue can influence anybody with a condition that makes it too much hard to move to the toilet and uncover in time. This incorporates issues as differing as having joint inflammation, being hospitalized or controlled, or having a toilet found too far away.

If a medication, (for example, a diuretic used to treat hypertension or heart issues) makes you create unusually a lot of pee, you could create incontinence that requires an adjustment in treatment (Harvard Health Publishing, 2014). On the off chance that you make the majority of your pee during the evening, the outcome may be nighttime incontinence, or bedwetting.

Reflex incontinence

It occurs when the bladder contracts without any previous warning. This is due to the part of the brain that command that bladder to contract. As such, reflex incontinence mainly occur with people who suffer from a certain brain damage (Harvard Health Publishing, 2014).

2.3 Urinary Incontinence Treatment

Like any other illness, treatments for the same problem differs as many factor should be taken into account like: the severity of the case, the causes and the various types of the same illness itself. The following information presented are an extract from the Mayo Clinic report done in 2018:

The treatments range from behavioral to surgical:

1- Behavioral techniques

- **Bladder training,** it is the concept of training oneself to delay urination. The standard treatment suggests to delay 10 minutes every time there is an urge to go.
- **Double voiding,** which translates to emptying the bladder completely. This treatment mainly works in solving the problem of overflowing. It suggests that a patient should wait few minutes and try urinating again after the first time.
- **Scheduled toilet trips,** as in instead of waiting until the urge of going kicks in, a schedule for urinating should be proposes which usually ranges between urinating every 2 or 4 hours
- **Fluid and diet management,** it goes without saying that control the amount of liquid consumption helps in controlling urinary inconsistency. Also, exercising and losing weight can contribute in having more control on the problem.
- **Pelvic floor muscle exercises,** There are certain muscles that control the urination. As such, sometimes it is recommended to strengthen these specific muscles, and this is done through a series of exercises called the Kegel exercises. This method is mainly beneficial for those who are struggling with stress incontinence.

2- Electrical stimulation

Similarly to exercising the muscles physical, the same results can be obtained as well through inserting electrodes into the rectum or vagina. However, this treatment needs a lot of follow up over several month. It can be a good solution for patients that have urge or stress incontinence.

3- Medications

- **Anticholinergics.** Mainly used for overactive bladders.
- **Mirabegron.** Mainly used for urge incontinence. It's function is to relax the muscle so that it can hold more urine than the usual. It also helps the person in urinating more urine, as in emptying the bladder more.
- **Alpha blockers.** Mainly used for men that suffer from urge incontinence as its main function is to relax the muscle in order to empty the bladder more effectively.
- **Topical estrogen.** It can be taken as a cream, ring or patch. It helps in revitalizing the urethra and vaginal areas. It should be noted that taking this medication as a pill will make incontinence even worse.

4- Interventional therapies

- **Bulking material injections.** This material help in keeping the urethra closed, and thus reducing urine leakages. However, such treatments are the least effective and they need frequent repetitions.
- **Botulinum toxin type A (Botox). This method is mainly effective with people who suffer from overactive bladder. It should be noted as well that botox is usually recommended when other first line medications aren't successful with the patients.**
- **Nerve stimulators. They are devices that get implanted under the skin in order to induce impulses that help in controlling the urine inside the bladder.**

5- Surgery

- **Sling procedures.** The sling is one from body tissues of your own body, where its main function is to keep the urethra closed. It is mainly used on stress incontinence patients.
- **Bladder neck suspension.** This is a surgery is done to provide support to the urethra and bladder neck.

- **Prolapse surgery.** In women with mixed incontinence and pelvic organ prolapse, surgery may include a combination of a sling procedure and prolapse surgery.
- **Artificial urinary sphincter.** This procedure is mainly done for men where a ring filled with fluid is implanted around the bladder neck. Its function is to keep the urinary tract shut. If the patient needs to pee, he has to press a valve (put under his skin) that deflates the ring and allows the urination.

6- Absorbent pads and catheters

Some products can help in easing the discomfort if other medical treatments weren't effective enough:

- **Pads and protective garments.** For men, it is possible to wear a device called a drip collector that goes over the penis and can be held in place by usual underwear.
- **Catheter.** If the incontinence issue in a patient is due to the bladder not being able to empty all the urine properly, a doctor can help the patients in teaching them how to insert a catheter several times during the day to drain their bladder.

Methodology

Sources and Method of Data Collection

A cross-sectional study will done using quantitative analysis, the study is based on primary data used to get information about the research problem from the relevant people that are concerned with such a study.

Population

The study will be conducted in different institutions and communities across Beirut and South Lebanon between May and first of June 2019. Sample group consisting of 50 elderly .The study will be conducted in Raee hospital and Age Optimum center in Beirut.

Materials/Instruments

The main instrument used to collect data is the questionnaire. The questionnaire will be physically distributed and explained by the researchers to all the participants. The questionnaire is structured in a way that it could efficiently achieve the main objectives of the research.

Operational Definitions of Variables

The hypothesis that this study was conducted for was to prove is that "urinary incontinence have a negative effect on the quality of life of the affected people when it comes to their health & relationships". By proving this hypothesis the study acknowledge the problem of the lack of care and society awareness in regards of the severity of this problem among the elderly women. In order to prove the hypothesis, the following variables were taken into consideration while constructing the questionnaire: physical, psychological and social health in all its aspects.

Questionnaires will be given to participants and face to face interviews will be done after signing consents.

The data was analyzed and tabled using Excel.

Tools:

A questionnaire tool was utilized to collect the required data for the study as follows; it is comprised of four parts:

- **"Demographic Data"** includes: age, marital status, and medical history.
- **"Correlated questions about patient's urination and other factors"** include: frequent urination, leakage related to the feeling of urgency, leakage related to physical activity, ability to household chores, physical restrictions, participation in social activities outside home, entertainment activities.
- **Inclusion Criteria:** Female elderly in-hospital patients with different comorbid diseases were complaining of UT.

RESULT

I- Socio-Demographic Data

Tabel1: table shows the variation of age 38% of sample was above 76 .the highest population was married 42%. And the DM +HTN shows the highest medical history percentage 34%

	age				marital status		
	65-70	71-75	above 76	single	married	widowed	CAD
total	16	15	19	14	21	15	6
percentage	32%	30%	38%	28%	42%	30%	12%
population	50	50	50	50	50	50	50

medical history						
CAD+DM	CVA+ALZA	DM+HTN	HTN+PARKINSON	HTN+ALZA	HTN+CVA	PARKINSON+CAD
3	5	17	3	3	3	10
6%	10%	34%	6%	6%	6%	20%
50	50	50	50	50	50	50

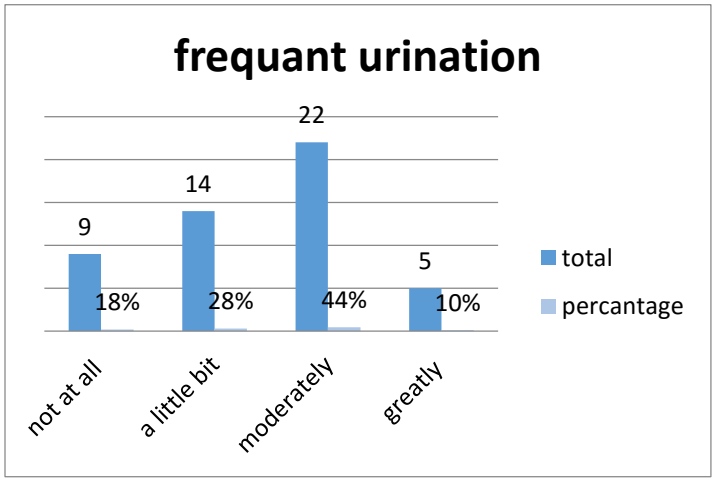

Figure 1: this figure shows that the highest percentage for the frequent urination among geriatric was 44%

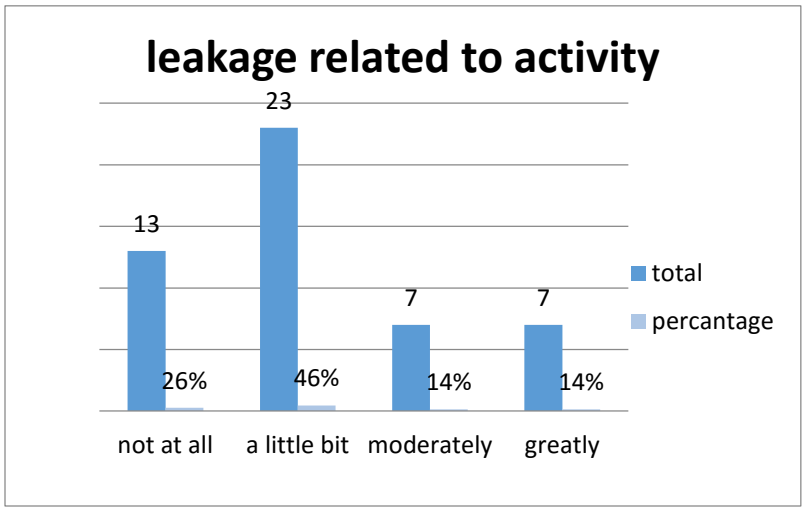

Figure 2: The highest percentage of urine leakage related to activity is 46% (a little bit).

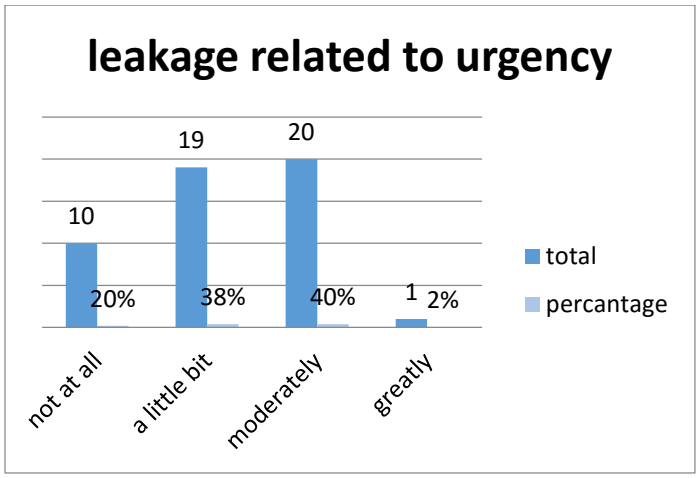

Figure 3: The highest percentage of patients who have leakage related to urgency is 40% (moderately)

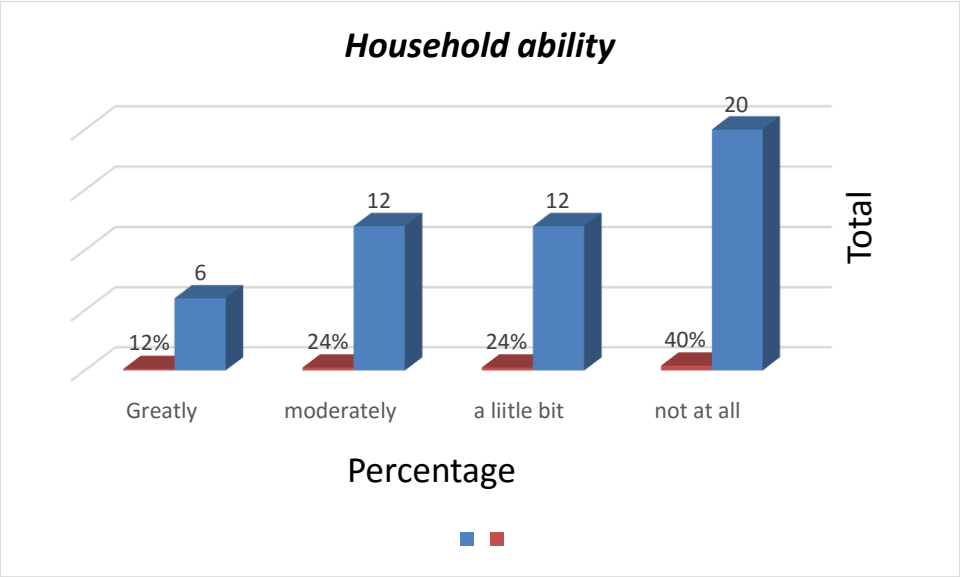

Figure 4: The percentage of patients who mostly not at all experience household chores ability was 48%

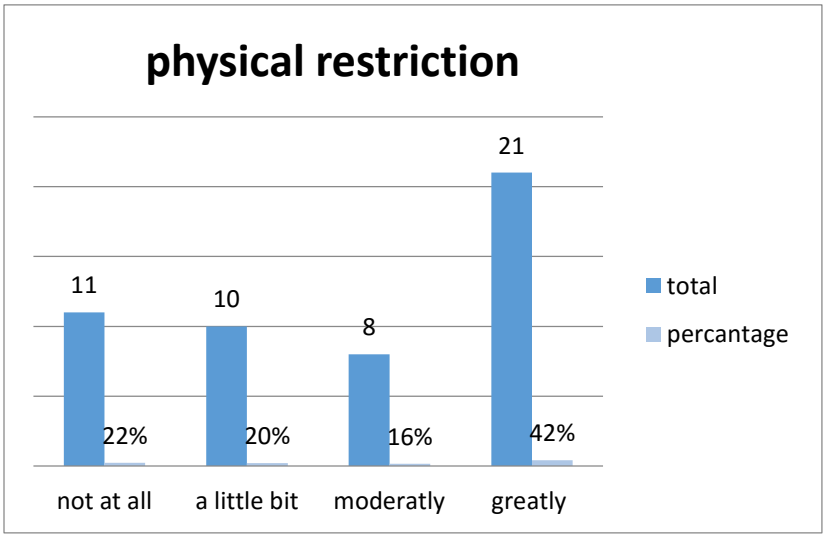

Figure 5: The percentage of patients who have physical restriction was 48% (greatly)

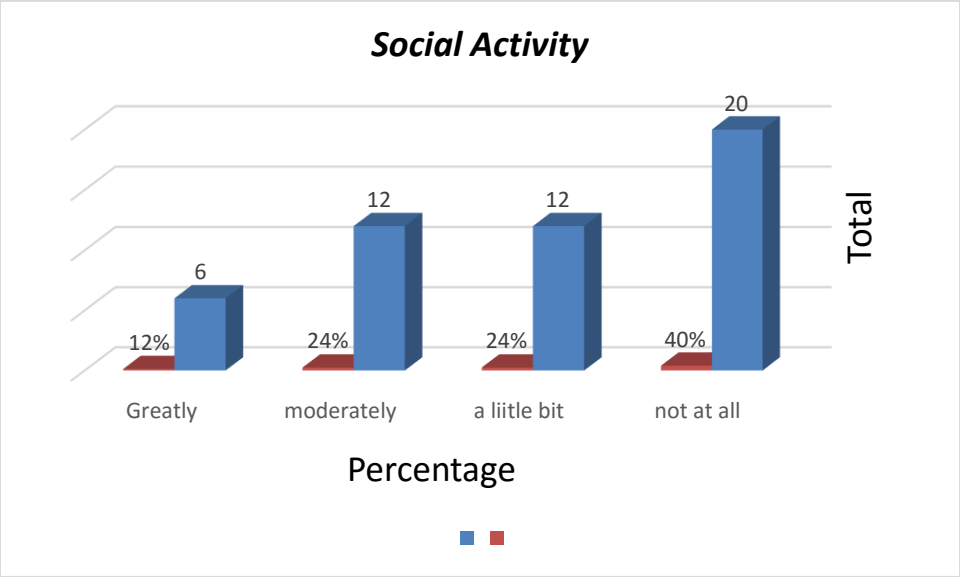

Figure 6: The percentage of patients who have not at all social activities was 48 %

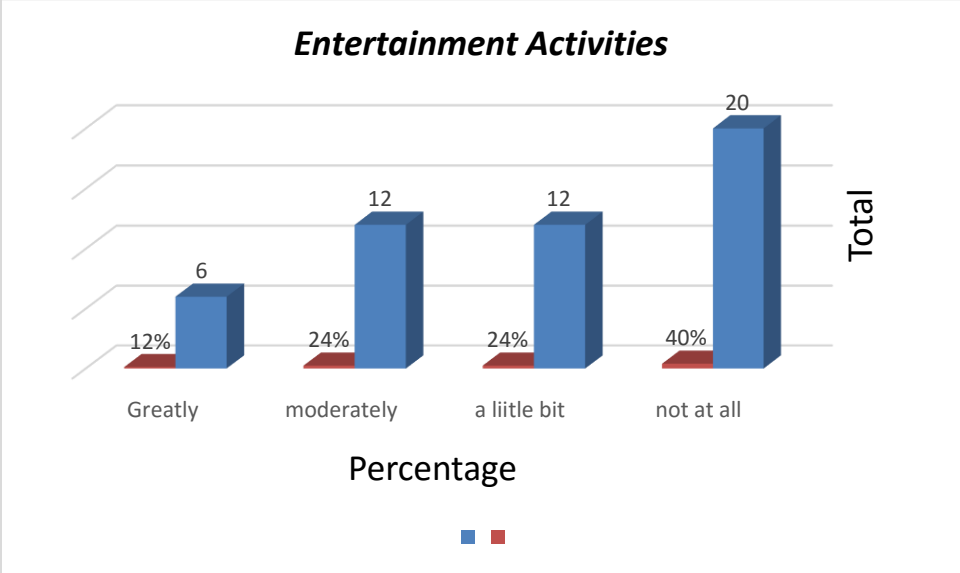

Figure 7: The percentage of patients who have a lack of entertainment activities was 40%

DISCUSSION

Regarding to the Study number 1 was done in July 11 2005 by Bron and Salmon about the impact of urinary incontinence on quality of life of elderly in which its result showed that the UI group was about twice as likely to feel depressed as the non-UI group. In comparing to our UI group depression couldn't score by any clinical scale, but the population can rated their physical health more negatively. This clearly shown in the lack of household chore ability, social activities & entertainment activities. Because UI may cause social isolation, it could have significant impact on patients' psychosocial well-being and quality of life (QOL). Studies have shown that patients suffering with UI that directly affect negatively on their physical status are more depressed, psychologically distressed, & emotionally disturbed.(Warren Salmon. 2005)

Based to Study number 2 done by Suli Shani in September 2014 that showed a strong correlation & relationship between urinary incontinence and quality of life / depression in elderly patients. And referred to our Results that were shown a physical reduction among UI sample. This reflect that UI in elderly adults with loss of physical abilities can change in their psychological condition and this need a practical using of the Geriatric Depression Scale on homebound elders with UI to find a significant depressive symptomatology data.

Referring to the Study number 4 done by Andrew Sstickley in April 8 2017 about urinary incontinence and loneliness among community older adults in Irland. Results showed 75% of older community- adults feel from loneliness & this association is largely explained by comorbid health problems. In correlation to our study, results showed the highest average of population had a lack of social activities and they were complaining of different comorbid diseases such as HTN & DM. To explain this point of view, further studies need to be conducted to assess the relation between chronic illness and physical impairment among UI elderly clients to investigate this general health perception.

CONCLUSION

Findings indicate that elderly patients with UI are more prone to have a lack of physical, social and entertainment activities, and have worse perceived health. On certain domains of QOL, the negative impact of UI even exceeds that of other severe comorbidities. Treatments for UI include behavioral techniques are now currently recommended as first-line therapy to enhance QOL among this sample of population to perceive health.

REFERENCES

1. Miller J, Hoffman E (2006), The causes and consequences of overactive bladder
2. Bell & DE Marinis (2016), Effect of urinary incontinence on the quality of life of asthmatic women.
3. Lin SJ, Salmon JW, Bron MS.(2005) , the impact of urinary incontinence (UI) on health-related quality of ... compare UI and non-UI elderly Medicare beneficiaries
4. Suli Shani (2014), Prevalence of urinary incontinence, risk factors and its impact: multivariate analysis from Indonesian nationwide survey.
5. Andrew Stickely (2010), Urinary incontinence is a common problem among the elderly, The Australian longitudinal study of aging.
6. WHO. Mental health, human rights and legislation. WHO's framework. World Health Organization, 2005.
7. Kufa Journal for Nursing Sciences Vol.4 No. 3 2014
8. Harvard Health Publishing, 2014. American Journal of Research Communication. (www.usa-journals.com)
9. New Perspectives on Overactive Bladder: Quality of Life Impact, Medication Persistency, and Treatment – American Journal Published on: July 15, 2005

APPENDIX

Dear Participant,

We invite you to participate in a research study entitled: The Effect of Urine Incontinence on the Quality of Life of Elderly We are currently in the process of obtaining our Bachelor Degree in nursing. The purpose of the research is to determine how much does urinary incontinence negatively effects the QoL in elderly.

Thank you for your cooperation.

SECTION A Demographic data:

Please tick the option where appropriate and/or answer the questions fully

1. Age:
   i. 65-70 years ( )
   ii. 71-75 years ( )
   iii. 76≥ years ( )

2. Marital Status:
   i. Single ( )
   ii. Married ( )
   iii. Widowed ( )

3. History of comorbidities:
   i. Hypertension ( )
   ii. Diabetes ( )
   iv. coronary artery disease ( )
   v. Cerebral vascular accident ( )
   vi. Parkinson / Alzahaimer ( )

SECTION B Correlation data

The following questions identify the severity of your urine consistency, and refer to areas to areas in your life that may have been influenced or changed by your problems. For each question, circle the response that best describes your case.

1 . frequent urination ?

i. Not at all ( )
ii. A little bit ( )
iii. Moderately ( )
iv. Greatly ( )

2 . urine leakage related to the feeling of urgency ?

i. Not at all ( )
ii. A little bit ( )
iii. Moderately ( )
iv. Greatly ( )

3 . urine leakage related to physical activity coughing or sneezing ?

i. Not at all ( )
ii. A little bit ( )
iii. Moderately ( )
iv. Greatly ( )

4 . ability to do household chores (cooking, housecleaning, laundry) ?

i. Not at all ( )
ii. A little bit ( )
iii. Moderately ( )
iv. Greatly ( )

5 . physical restriction such as walking ,or other exercise ?

i. Not at all ( )
ii. A little bit ( )
iii. Moderately ( )
iv. Greatly ( )

6. participation in social activities outside your home ?

i. Not at all ( )
ii. A little bit ( )
iii. Moderately ( )
iv. Greatly ( )

7 . Entertainment activities (movies , concerts ect) ?

i. Not at all ( )
ii. A little bit ( )
iii. Moderately ( )
iv. Greatly ( )