Faculty of Medicine

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EXPLORE THE CHARACTERISTICS OF URINARY INCONTINENCE AFTER CHILD BIRTH

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EXPLORE THE CHARACTERISTICS OF URINARY INCONTINENCE AFTER CHILD BIRTH

Submitted by **Siddiqua Syeda Ummul** for partial fulfillment of the requirements for the degree Bachelor of science in physiotherapy.(B. Sc in PT)

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Declaration

I declare that the work presented here is my own. All sources used in the study have been cited appropriately. Any mistakes or inaccuracies are my own. I also declare that for any publication, presentation or dissemination of information of the study. I would be bound to take written consent from Physiotherapy Department, Bangladesh Health Professions Institute (BHPI).

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Acronyms

&= And

ADL= Activities of daily living

BHPI= Bangladesh Health Professions Institute

BMRC= Bangladesh Medical and Research Council

CRP =Centre for the Rehabilitation of the Paralysed

IRB = Institutional Research Board

MUI= Mixed Urinary Incontinence

P-Value= Probability value

SPSS =Statistical Package for Social Sciences

SUI= Stress Urinary Incontinence

UI =Urinary Incontinence

UUI =Urge Urinary Incontinence

WHO= World Health Organization

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Abstract

Purpose: The purpose of the study is to explore the characteristics of urinary incontinence after child birth. **Objectives:** To explore the socio demography, route of delivery, household activities, entertaining activities, mental health affected urinary incontinence after child birth, to explore frequency time, character, amount of urine loss of urinary incontinence, to check awareness of women for physiotherapy treatment. **Methodology:** Cross-sectional study carried out with 50 women after child birth. Data is collected by using Incontinence Impact questionnaire with informed consent of the patients who come for treatment in Mirpur-CRP. **Result:** In this study, the mean of the 60 women is 49.78. 41.7% women has stress urinary incontinence, 58.3% women are suffering from urge urinary incontinence. The housewives are greatly suffering from urinary incontinence. Urinary incontinence is commonly found who have history of vaginal delivery. 71.7% women with history of vaginal delivery and 28.3% caesarean delivery are suffering from urinary incontinence. Urinary incontinence has impact on social activities, household activities and entertainment. **Conclusion:** The risk of urinary incontinence is higher rate among women who have history of vaginal delivery than cesarean delivery women. Pelvic floor muscle exercise helps to minimize urinary incontinence. But women are not aware about continue physiotherapy service.

Key word: Urinary incontinence, Stress urinary incontinence, Urge urinary incontinence, postpartum, pelvic floor muscle exercise.

CHAPTER-I: INTRODUCTION

1.1Background

Urinary incontinence is the most troublesome and probably underreported disease of women in the world. Urinary incontinence has been associated with loss of independence, decrease participation in social activities and decrease quality of life. In the world, more than 200 million people suffer from incontinence. Urinary incontinence has more found in women than men. Bangladesh is the country in Southeast Asia where one third of population living in poverty. Bangladeshi women are at higher risk for postpartum disorders directly related to socio-economic status. During postpartum period 80% women are associated with preeclampsia, septic abortion, infection, urinary incontinence, hemorrhage (Walton et al., 2013). In Paris, Prevalence of UI ratio of women: men is 2:1 (Buckley et al., 2010). The prevalence of Urinary incontinence of 12-24 months postpartum women is 16.3% in Brazil. Weight gain during pregnancy is also responsible for UI in postpartum women (Magnani et al., 2019). UI is more affect rural area living older women than urban area living older women in Malaysia (Murukesu et al., 2019).

Storage and emptying of urine is the physiological co-ordination between the bladder and urethra, interference in the system lead to UI. Pathophysiology of stress urinary incontinence is urethral hyper mobility, intrinsic sphincter deficiency. Urgency urinary incontinence is caused by increasing afferent activity from the bladder and abnormal handling of afferent signals in the brain. Incomplete bladder emptying e.g. due to detrusor under activity or bladder outlet obstruction is responsible for overflow UI. Insufficient urethral closure pressure, vesicovaginal or vesico-uterine fistulas, ectopic implantation of uerter in urethra, extreme intrinsic deficiency, permanent decrease mobility are often causes UI (Wyndaele et al., 2017).

Female Urinary incontinence has adversely affects quality of life, productivity, socializing and sexuality and has an enormous impact on healthcare cost. Women with UI limit their social activities due to the possible shame and fear associated with leaving the house. Pregnancy and vaginal delivery increase risk of urinary incontinence in Swedish women (Gyhagen et al., 2019).

Urinary incontinence is a significant health concern and has been shown to impair women's activities and also affects the physical and mental. Multiple risk factors have been associated with UI. Significant risk factors for UI in pregnancy were maternal age ≥35 years, body mass index and parity. Smoking, diabetes, chronic cough and high intake of caffeine are identifiable risk factors for UI (Priya et al., 2017).

Pelvic floor muscle exercise is the prevention and first-line management for urinary incontinence after delivery. Non-pharmacological treatment is more fruitful than pharmacological treatment both stress and urgency UI. Non-pharmacological therapy has aim to strengthen pelvic floor, influence bladder function. Pharmacological treatment is address bladder and urethral sphincter function (Balk et al., 2019).

1.2Rationale

Now a days urinary incontinence is a common trouble in women after child birth in Bangladesh. Bangladesh is a developing country in the world. Women are not conscious about their health in Bangladesh. Health care facilities are vulnerable situation in rural area of Bangladesh. Women received treatment from unqualified health care providers during delivery. That's why, many postpartum complication arise in Bangladeshi women. This research's aim to find out how is related urinary incontinence with age, socioeconomic condition, educational status, lack of awareness etc. Gynecological physiotherapy can prevention, treatment of Urinary incontinence and improve consciousness of their health. This study has aim to explore the characteristics of UI after child birth. This study has detects age, occupation, route of delivery affects or not UI and also detect frequency of urination, quality of life. It would be helpful for physiotherapist for working in postnatal Urinary incontinence. Pelvic floor muscle exercises are effective to improve the continence mechanism and improve the function and tone of pelvic floor muscle. Physiotherapy treatment is more effective than pharmacological treatment in urinary incontinence. Research makes the profession strongest. Gynecological physiotherapy is the most important part of physiotherapy. Gynecological research is expanding the scope of practice and also creates a future prospect of physiotherapy profession in our country. So, fulfillment the 4^{th} year B. Sc in physiotherapy, this research should be carried out.

1.3Research question

What are the characteristics of Urinary incontinence after child birth?

1.4Objectives

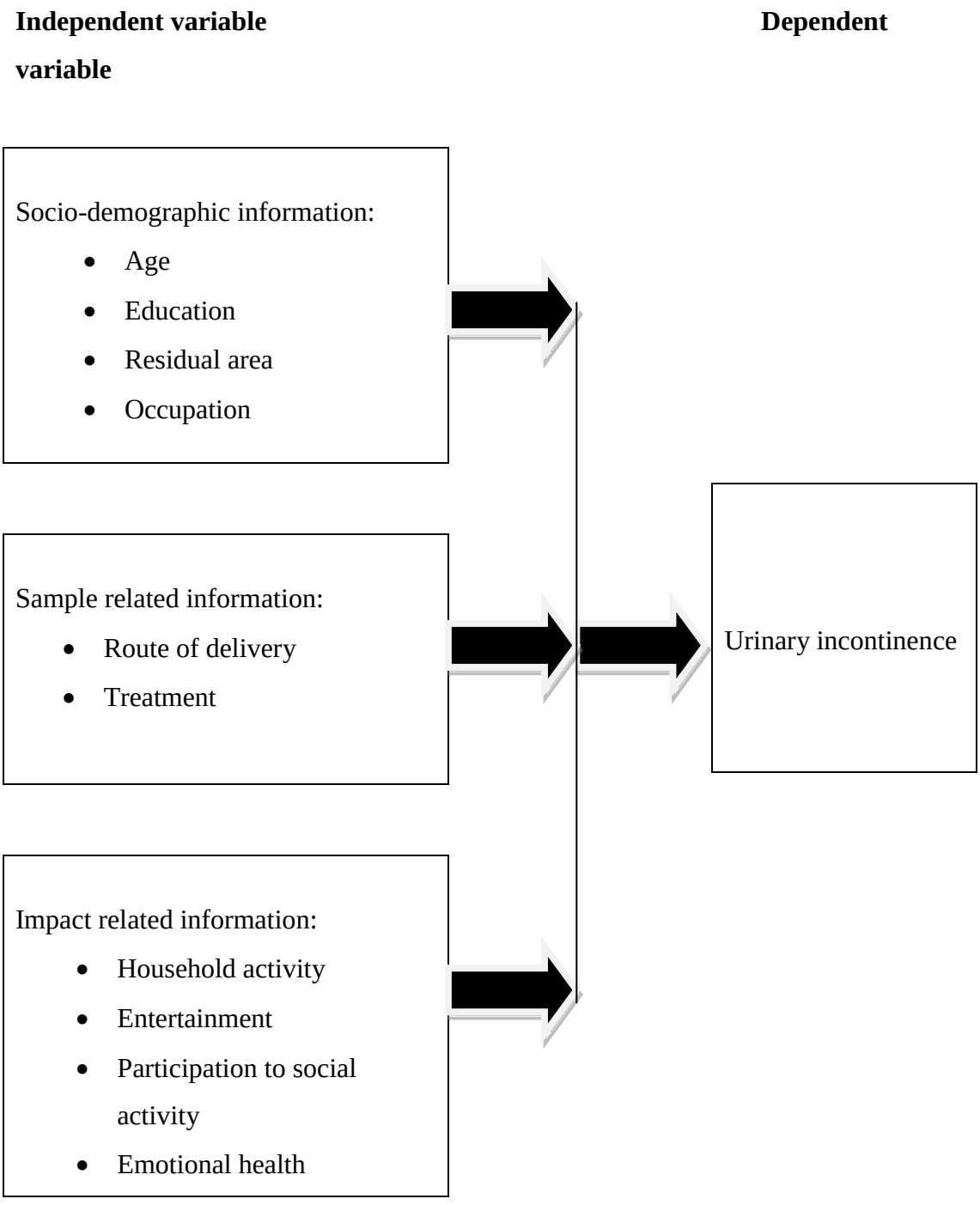
1.4.1 General objective

- To explore the characteristics of urinary incontinence after child birth

1.4.2 Specific objectives

i. To explore the socio demography , for example age, education and occupation affected urinary incontinence after child birth
ii. To identify which route of delivery more responsible for urinary incontinence after child birth
iii. To find out the frequency , time, character, amount of urine loss in urinary incontinence
iv. To find out which type of urinary incontinence occur after child birth
v. To explore the impact of ability to household activities, entertaining activities
vi. To enquiry is urinary incontinence affect on mental health
vii. To check awareness of women for physiotherapy treatment

1.5 Conceptual framework



1.6 Operational definition

Urinary incontinence: The complaint of any involuntary leakage of urine.

Stress urinary incontinence: Involuntary loss of urine, with effort or exertion, or on sneezing or coughing.

Urge urinary incontinence: Involuntary leakage accompanied by or immediately preceded by urgency.

Mixed urinary incontinence: involuntary leakage of urine accompanied by urgency and effort or physical exertion or on sneezing or coughing.

CHAPTER-II: LITERATURE REVIEW

Bangladeshi women have been already at higher risk for postpartum disorders. In a Bangladeshi research that are occurring for seeking women health care for safe motherhood. 118 married women are selected by using random sampling for this study. Data collected by qualitative and quantitative techniques. Age of marriage, age at child birth, educational background, occupation, economic status, location of resistance and awareness of husband affect women health care. 86% women are receive health care service from unqualified health care providers in rural area. The deliveries in the rural area are often assisted by untrained birth attendants or elder relatives. 74.8% women give birth to their parent's home, 18.6% at their laws house, 0.8% at Government hospital, 6% at private clinics. There is lack of training of birth attendant in rural Bangladesh. 0.8% women assisted by doctors, 5.1% by trained birth attendants, 88.1% by untrained birth attendants. For untrained birth attendants, postpartum problem such as bowel problem, postpartum mental disorders, urinary incontinence, pelvic pain, low back pain are found (Akter et al., 2012).

In Brazil 13,214 women are taken for cross-sectional study to identify the prevalence of urinary incontinence between 12 and 24 months postpartum with two different socioeconomic cities. Women are received a semi-structured questionnaire for data collection. The prevalence of UI at 12-24 months postpartum in higher socioeconomic city is more than lower socioeconomic city. Weight gain during pregnancy, gestational diabetes, and smoking is the responsible for higher rate of prevalence in high socioeconomic city (Magnani et al., 2019).

After vaginal delivery urinary incontinence is common in Nigeria. A longitudinal study is explain the predictors and prevalence of urinary incontinence in Nigeria. Total 230 postnatal women are taken for study. Data collected by valid International Consultation on incontinence Questionnaire. The prevalence of urinary incontinence is 12.2%, Stress

urinary incontinence and urge urinary incontinence is 7.4% and 3.5%. Vaginal delivery is increasing risk of UI than cesarean section. Maternal age more than 34 years, low socio economic status, prolonged second stage of labor , neonatal birth weight >4 kg influence postpartum UI (Obioha et al., 2015).

In Taiwan 53.7% women are suffer from UI and related symptoms. The prevalence of stress urinary incontinence, urge incontinence and mixed incontinence is 18%, 18.6%, 17.1%. In their study, vaginal delivery is the more risk factor for UI than cesarean section. Menopause, higher parity, gynecological surgery, diabetes and hypertension increased the occurrence of urinary incontinence (Chen et al., 2004).Urinary incontinence is affected appromaximately 50% of American women during their lifetimes. The rate of UI increased with age. Women aged of 30-39 years and 80-90 years , prevalence of UI are 8% and 33% (Lin et. al., 2018).

The Prevalence of 15–23 years women after first delivery is 46.9%. In Norway, they conducted a cross-sectional study among 3115 women who delivered their first child at Trondheim University Hospital. The questionnaire included of the Pelvic Floor Distress Inventory (PFDI-20). Statistical analysis was performed with IBM SPSS statistics version 21.0. Caesarean delivery was decreased risk and operative vaginal delivery with increased risk of pelvic floor dysfunction 15–23 years after first delivery. Maternal age at delivery, current body mass index (BMI), chronic coughing, hysterectomy, menopause, smoking habits, and infant birth weight is the risk factor of urinary incontinence (Volloyhaug et. al., 2015).

The prevalence range of Turkish women is 16.4% to 50.3%. A cross-sectional study was conducted at the department of physiotherapy and rehabilitation of Hacettepe University to compare the differences in symptom distress, quality of life, and pelvic floor muscle function among Turkish women with mild, moderate, or severe urinary incontinence.120 women with UI are taken for study. 54.2% women had stress urinary incontinence and 45.8% women mixed-urinary incontinence. Incontinence Severity Index, Urinary Distress Inventory-6, Incontinence Impact Questionnaire-7 were used to assess the severity,

quality of life of UI women. Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) software, version 21 distribution of the data was checked using the Kolmogorov-Smirnov test. This study concluded that women with severe SUI had more decreased quality of life than those with mild SUI. Severe MUI had greatly impact on symptom distress and quality of life than mild or moderate MUI. The severity of SUI or MUI was related with symptom distress and quality of life in Turkish women (Orhan et. al., 2019).

Urinary incontinence affects 50% American women during their lifetimes. A population-based research had occurred for studying the frequency, amount and severity of urine leakage of women. 6000 women aged between 30-90 years old has conducted who were enrolled in a large health maintenance organization in Washington state. After applied exclusion criteria, 3536 patient had taken. The prevalence of urinary incontinence was 45% in Washington. The study was measured by incontinence Quality of life instrument, Likert scale, Patient Health Questionnaire. Urinary incontinence is increasing with age. The prevalence of UI is 55% for aged between 80-90 years, 51% for 60-69 years, 48% for 50-59 years, 41% for 40-49 years, and 28% for 30-39% year's women. Diabetes, older age, major depression, history of hysterectomy, mode of delivery was the factors associated with UI. Pelvic floor muscles had been damaged in vaginal delivery that causes UI. 17% women suffer from UI for vaginal delivery in US. (Melville et. al., 2005) Childbirth, age, obesity, functional impairment, family history, constipation, smoking, genitourinary prolapsed or other medical condition can responsible for UI in women. 30% women are affected after first vaginal delivery (Norton et al., 2006).

Urinary incontinence (UI) is one of the most important health problem recognized by WHO. It is a disturbing medical condition influence quality of life (QOL). The prevalence of UI is varying from 8-45% in different research. This study was designed among the population around SRM-IMS in Bareilly, India. Out of 464 women, 236 women are taken. 28 women had urinary incontinence. There are six parameters were needed to measure impact of UI. The prevalence of urinary incontinence in their study was about 12%. The presence of UI is increasing with age.

Urinary incontinence had influence on quality of life of a woman. These are the limitation in ADL, limitation in social activities, problem in sexual life, financial problem, psychological stress and work place sufferings. The percentage of stress urinary incontinence was 22%, urgency incontinence was 38% and 38% had mixed type of urinary incontinence. Various obstetrical factors are responsible for UI (Agarwal et al., 2017)

In Portugal, urinary incontinence among women is a major health problem with both psychological and economic impact. 80 women age 27 to 80 years old with urinary incontinence are receiving rehabilitation treatment in their study. The mean age for women was 49.59. Data were collected in the Physical and Rehabilitation Service of a central Hospital Portugal. A cross-sectional and correlation design was conducted. Clinical and Socio-demographic Questionnaire, Incontinence QoL., PRAFAB Questionnaire, UI Severity and Impact, Hospital Anxiety and Depression Scale was used to assess symptoms. T-tests and Mann Whitney tests were guided to find differences in QoL according to socio-demographic variables, Sexual satisfaction, and urinary incontinence severity and impact predicted quality of life (Pereira et al., 2016).

50% of women are suffer from UI at any stage of their lives, especially during pregnancy and postpartum. This study was designed in order to identify and assess the prevalence and risk factors for urinary incontinence during the third trimester of pregnancy and three months postpartum. Observational and cross-sectional study was involving 268 pregnant women for this study. Incontinence Questionnaire was used for collecting data in the third trimester of pregnancy women and three month after delivery. Data was analyzed by SPSS software, version 22.0. 28.69% of women with urinary incontinence had vaginal delivery and 5.91% of women had cesarean delivery. In other group of women with postpartum urinary incontinence (n = 82), 31.69% have had urinary incontinence only in the postpartum and symptoms during pregnancy have had 68.31% of women. The prevalence of UI has been got during 35% during the third trimester of pregnancy (Rocha et al., 2017).

Urinary incontinence is a troublesome disease which is often under reported, UI has significant impact on one's quality of life on women. A Cross sectional study to find out risk factors and treatment-seeking behavior, quality of life of affected women.177 women aged 50 years or above attending a rural health facility with a structured schedule. Data were analyzed using appropriate statistical methods by SPSS (version 16). Bivariate analysis was done to ascertain the relationship between socioeconomic, demographic, and certain known risk factors variables with UI. Forty-nine (27.7%) out of 177 women were found having UI. The most prevalent type of UI was stress UI (51.0%), followed by mixed UI (32.7%) and urge UI (16.3%). Moderate to severe UI was affects 7% of women 20–39 years of age, 17% 40–59 years of age, 23% 60–79 years of age, and 32% ≥80 years of age. Treatment-seeking behavior shown negative correlation with QoL while fecal incontinence and LUTS shown positive correlation. Generating awareness regarding UI may help to improve health-seeking behavior and QoL (Biswas et al., 2017).

Almost 30.9% of women in China have experienced UI. Pregnancy, childbirth, hysterectomy, obesity, older age and family history are the primary risk factors. A prospective consecutive cohort study 60 and 80 participants was postpartum women and non- postpartum groups. IIQ-7 questionnaire, 1-h pad weight test, vaginal contraction pressure (VCP) was used. The $\chi 2$ test and *t*-test were used to control the similiarity of the groups at baseline. The Wilcoxon signed-rank test was used for the intra-group analysis. All of the statistical analyses were performed using SPSS software version 17. PFMT play important role in postpartum women with SUI better than the non-postpartum women. PFMT is recognized as the first-line prevention and treatment for pre- and postpartum UI (Sun et al., 2018).

CHAPTER-III: METHODOLOGY

3.1 Study design

This study was a descriptive, cross-sectional design to analysis characteristics of UI patients.

3.2 Study sites and area

The study was conducted at the gynecological unit of Center for the Rehabilitation of Paralyzed (CRP), Mirpur, Dhaka.

3.3 Study population and sampling

Though in this type of study the population should be for all the postpartum women in Bangladesh but it was too large and also not possible to include them all in the study. The study populations were patient with urinary incontinence came to Gynecology outpatient unit of MS department of Mirpur-CRP after child birth for treatment.

3.4 Sampling technique

The study was conducted by using the convenience sampling methods due to the time limitation and as it was the one of the easiest, cheapest and quicker method of sample selection. The researcher used this procedure, because, getting of those samples whose criteria were concerned with the study purpose.

Convenience sampling techniques is to draw out sample from population. Sampling is based on inclusion and exclusion criteria. Findings the appropriate number and type of people taking part in the study is called “sampling” (Hicks et al., 2000).

3.5 Inclusion criteria

- Pirimigravida and multigravida women with urinary incontinence
- Age group 30-70 years old female patient is selected

3.6 Exclusion criteria

- Pregnant women
- Women who have no child
- Patient with psychological problem
- Mixed urinary incontinence

3.7 Sample size

Sample is a group of subjects were selected from population, who are used in a piece of research (Hicks et al., 2000).In this project, researcher selected 60 urinary incontinence patients through convenience sampling technique.

The equation of sample size calculation are given below-

$$n = \frac{Z^2 pq}{d^2}$$

Here, n= the desired sample size (eventual sample size).

z= 1.96 which corresponds to the 95% confidence level.

$$z\left(1 - {}^{\alpha}/_{2}\right) = 1.96$$

p= proportion of the target population estimated 1.11%,

p(Prevelence) =0.0111 (Ferdous et al., 2012)

q=1-p=1-0.0111 =.98

d= degree of accuracy set at 5%= 0.05.

According to this equation the sample should be more than 67 people but due to lack of accessibility and time the study is conduct with 60 urinary incontinence patient.

3.8 Data collection method and tools

Questionnaire

A structured questionnaire was used for data collection in this study. The duration of data collection was 10 min for every individual patient. At the very beginning researcher clarified that, the participant has the right to refuse to answer of any question during completing questionnaire. They can withdraw from the study at any time. Researcher also clarified to all participants about the aim of the study. Participants were ensured that any personal information would not be published anywhere. Researcher took permission from each volunteer participant by using a written consent form. After getting consent from the participants, standard questionnaire was used to identify the complain and collect demographic information. Questions were asked according to the Bangla format. For conducting the interview, the researcher conducted a face to face interview and contract in phone to asked questions.

At the very beginning researcher clarified that, the participant has the right to refuse to answer of any question during completing questionnaire. They can withdraw from the study at any time. Researcher also clarified to all participants about the aim of the study. Participants were ensured that any personal information would not be published anywhere. Researcher took permission from each volunteer participant by using a written consent form. After getting consent from the participants, standard questionnaire was used to identify the complain and collect demographic information. Questions were asked according to the Bangla format Face to face interviews are also effective to describe characteristics of a population. Interviews was used to find specific data which describes the population descriptively during discussion. According to the participants' understanding level, sometimes the questions were described in the native language so that the patients can understand the questions perfectly and answer accurately. All the data were collected by the researcher own to avoid the errors. For this the materials to successful complete this interview session were used such as- question paper, consent form, pen, clip board, file etc.

3.9 Data analysis

Data is analyzed with the software named Statistical Package for Social Science (SPSS) version 20. The data that the researcher collected is descriptive data. Every questionnaire was rechecked for missing information or unclear information. At first put the name of variables in the variable view of SPSS and the types, values, decimal, label alignment and measurement level of data. The next step was to input data view of SPSS. After input all data researcher checked the inputted data to ensure that all data had been accurately transcribed from the questionnaire sheet to SPSS data view. For the study of the association of numeric variables pearson correlate test were used. Data were analyzed by descriptive statistics and calculated as percentages and presented by using table, bar graph, pie charts etc. Then the raw data was ready for analysis in SPSS. Microsoft word excel was also used to present data using column and pie chart.

3.10 Inform consent

Written consent was taken from all participants to the completion of the questionnaire.

3.11 Ethical consideration

It should be approval from the ethical committee of physiotherapy department of BHPI to conduct the study. Ethical issues will follow by World Health Organization and Bangladesh Medical and Research Council (BMRC). The research project was submitted to the Institutional Review Board (IRB) and obtained approval. A written application was submitted to the authority of Mirpur CRP for involvement of clients and other facilities to complete this study. When the investigator had received an approval letter from the ethical committee and obtained permission from authorities of the selected hospital, then the data collection was started. Written consent was taken from the participants to ensure voluntary participation in the study and participants had the autonomy to leave the study at any time. Participants were informed about the aim, objectives and the procedures involved the study.

CHAPTER-IV: RESULTS

The mean age of the participants is 49.78. The majority of the respondents 31.6% (n=19) is in 50-59 years of age, 28.4% (n=17) is in 40-49 years of age, 21.6% (n=13) is in 60-69 years of age, 18.3% (n=11) is in 30-39 years of age in this study (Figure- 4.1).

Table 4.1: Socio-demographic characteristics

Characteristics	Number (n)	%
Age		
30-39 years	11	18.3
40-49 years	17	28.4
50-59 years	19	31.6
60-69years	13	21.6
Educational qualification		
No formal schooling	23	38.3
Primary school certificate	14	23.3
Secondary school certificate	06	10
Higher school certificate	07	11.7
Higher degree level	10	16.7
Residential Area		
Urban	49	81.7
Rural	11	18.3
Occupation		
Housewife	55	91.7
Service holder	05	8.3

Majority of the respondents 38.3% (n= 23) have no formal schooling, 23.3% (n=14) are completed their primary school certificate (P.S.C), 10% (n=6) are completed secondary school certificate and 11.7% (n= 7) are higher secondary school certificate, 16.7% (n=10) are Higher degree level in this study (Figure-4.1).In this study, showed that among 60 participants, 81.7% patients live in urban area, 18.3% patients are the member of rural area. The mean of the study is 1.8167, standard deviation is.39020.Most of the respondents were housewife 91.7% (n= 55) followed by service holder 8.3% (n= 05) in this study. The mean of the study is 1.0833, standard deviation is 0.27872.

4.2.1 Urinary incontinence before and during Pregnancy

The investigator found 60 women as sample. The study result shows that 13% (n=18) patients complain of urinary incontinence before pregnancy. The mean of this study is 1.8667, Standard deviation is 0.3428. Among them 38.3% (n= 23) participants reported UI. UI during pregnancy rate is more than UI before pregnancy.

Table 4.2: Urinary incontinence before and during Pregnancy

Present of UI	Number (n)	%
UI before pregnancy		
Yes	18	13
No	42	86.7
UI during pregnancy		
Yes	23	38.3
No	37	61.7

4.2.2 Route of delivery

The majority of the patients (n=43) have history of vaginal delivery 71.7%, 28.3% (n=17) patients have history of cesarean Delivery (Figure-1). The mean is 1.7167, Standard deviation is 0.45442.

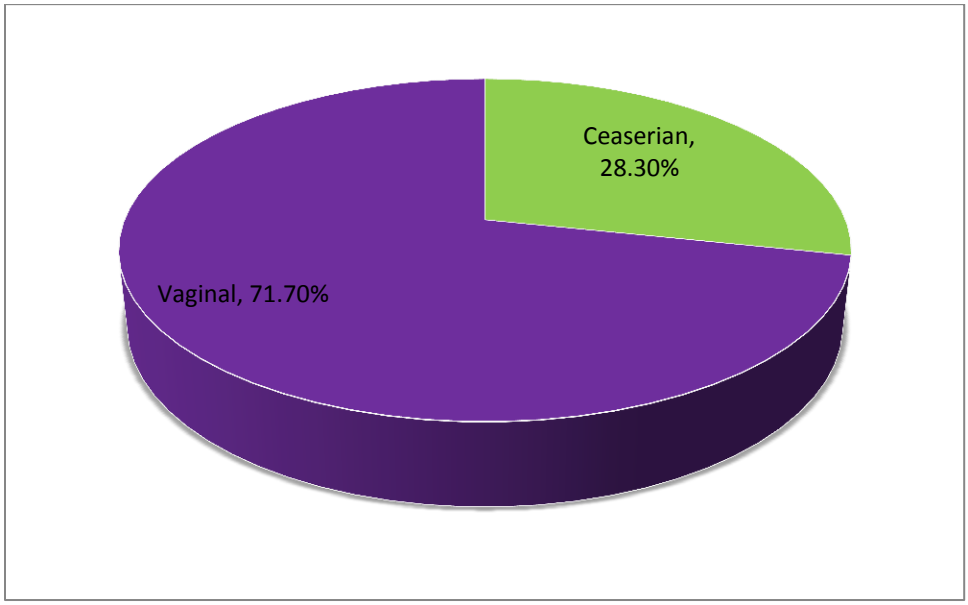


Figure-1: History of route of delivery

4.2.3 Time of urine loss

Most of the urinary incontinence patient (70%) complain leakage of urine both day and night time, 10% patient complain in only day time, 20% patient complain of leakage in night.

Table 4.3: Time of urine loss

Time of urine loss	**Number**	**Percentage (%)**
Day time	6	10
Night time	12	20
Both Day and night time	42	70
Total	**60**	**100**

4.2.4 Frequency of urine leak

Majority of the cases were experienced frequency of UI about once a week or less often in 10% and 20% cases were experienced frequency of UI two or three times a week, 11.7% cases are experience frequency of once a day, 35% cases are experience of several a day, 23.3% cases are experience frequency of UI all the time (Figure: 2).

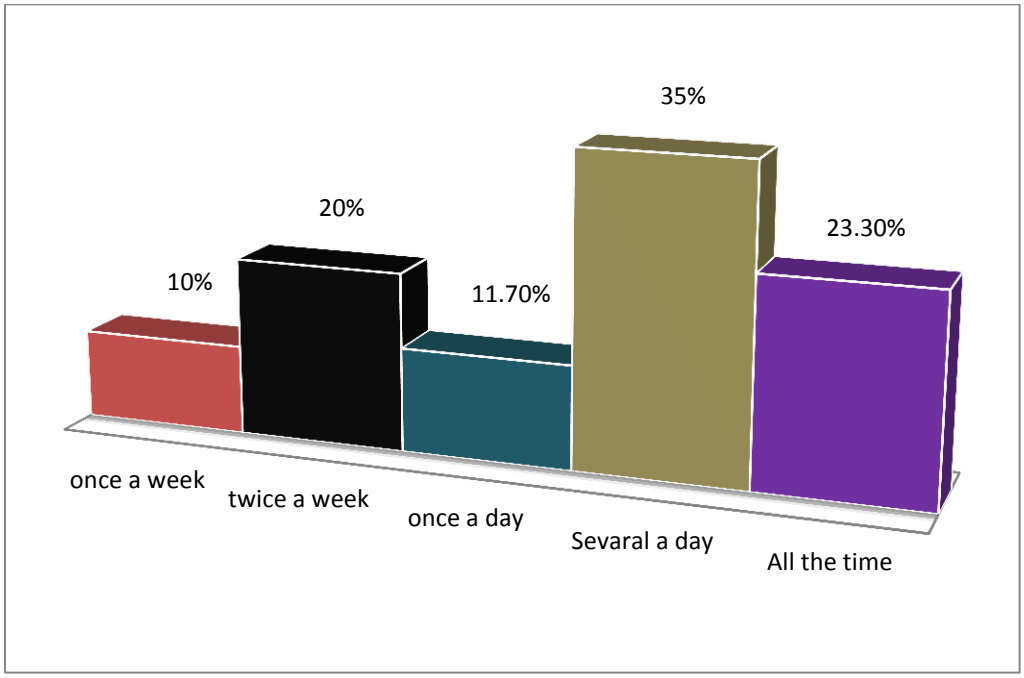


Figure 2: Frequency of urine leak

4.2.5 Leakage type

When leak urine, it is usually just moisture 15% (n=9) patients, Wet underwear 33.3% (n=20) patients, Trickle down 31.7% (n=19) patients, wet the floor 20% (n=12).

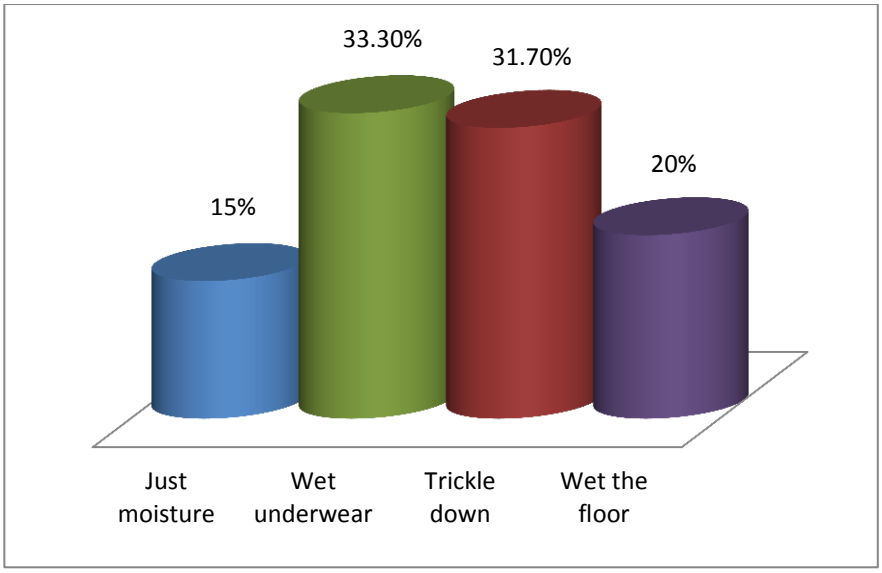


Figure 3: Leakage type

4.2.6 Character of urine loss

From all participants, 51.7% (n=31) of patients suffer from leak of urine as droplets, 48.3% (n=29) patients suffer from UI as overflow.

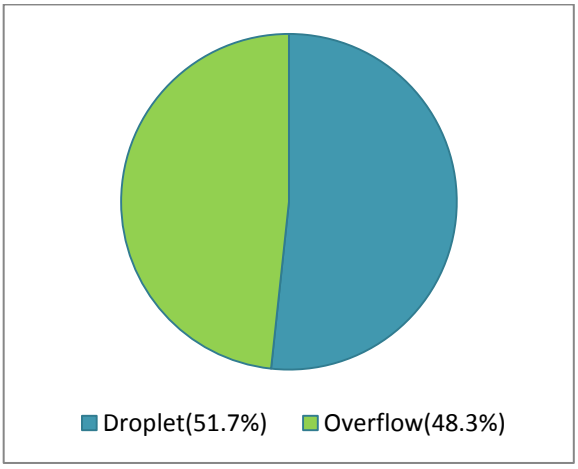


Figure 4: Character of urine loss

4.2.7 Amount of urine leak

Usually , urine leakage 25(41.7%) women are few drops to less than ½ teaspoon , ½ teaspoon to less than 2 tablespoons 21.7% (n=13), 2 tablespoons to ½ cup 23.3% (n=14), ½ cup or more 13.3% (n=8).

Table 4.4: Amount of urine leak

Amount of urine leak	**Number**	**Percentage (%)**
Few drops to less than ½ teaspoon	25	41.7
½ teaspoon to less than 2 tablespoons	13	21.7
2 tablespoons to ½ cup	14	23.3
½ cup or more	8	13.3
Total	**60**	**100**

4.2.8 Urination wake up to the time before go to bed

Most of the patients (58.3%) go for urination 6-12 times, 26.7% go for urination 13-18 times, 15% go for urination <6 times all day long. And 40% patient goes urination 1-2 times , 40% goes 3-4 times, 20% goes >4 times in sleeping period .

Table 4.5: Urination wake up to the time before go to bed, Urination after goes to sleep

Urination wake up to the time before go to bed	**Number**	**Percentage (%)**
<6 times	9	15
6-12 times	35	58.3
13-18 times	16	26.7
Total	**60**	**100**
Urination after goes to sleep		
1-2 times	24	40
3-4 times	24	40
>4 times	12	20
Total	**60**	**100**

4.2.9 Urination related with coughing

In all participants, 41.7% (n=25) patient have urination with coughing. So, 41.7% patients have stress urinary incontinence, 58.3% patients have other types of urinary incontinence. The mean of the study is 1.5833, Standard deviation is 0.93519. (Figure-05)

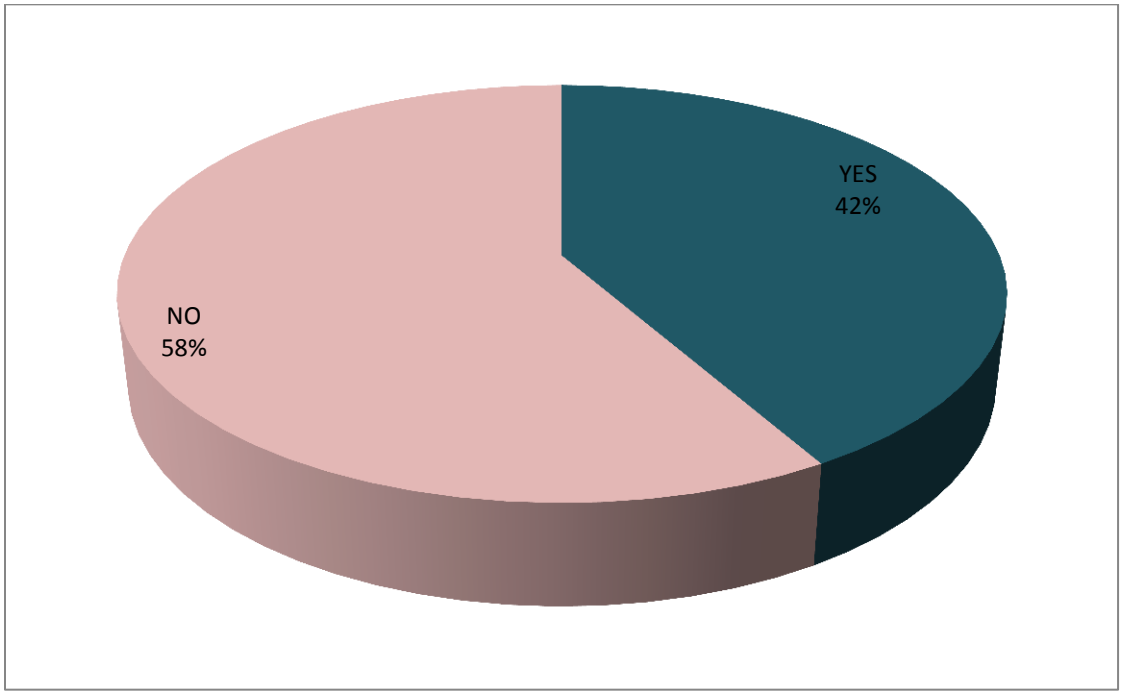


Figure 5: Urination related with coughing

4.2.12 Protection

95% women don't use any protection, 1.7% use pads only if have cold or going out , 3.3% use large pads. The mean is 1.20, Standard deviation 0.93519.

Table 4.6: **Protection for UI**

Protection for UI	Number	Percentage (%)
No pads or protection and No change of undergarments all day	57	95
Pads only if have a cold or going out	1	1.7
Pads or protection every day, changing once a day	0	0
Pads or protection every day, changing twice a day	0	0
Pads or protection every day, changing three times or more times per day	0	0
Large pads (e.g.- Diapers)	2	3.3
Total	**60**	**100**

4.2.13 Participants who received treatment before coming CRP

The mean is 1.20, standard deviation is o.21978. Only 5% patient is received treatment before going CRP.

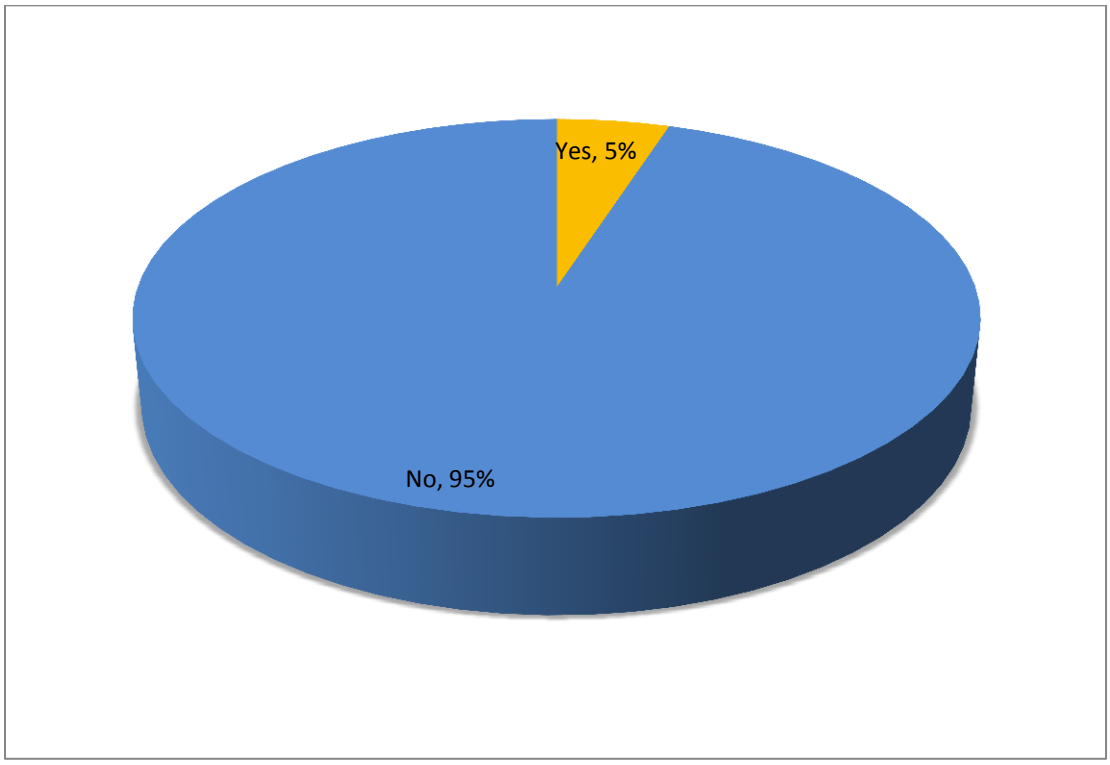


Figure 6: Participants who received treatment before coming CRP

4.2.14 Participants who received physiotherapy treatment

From all patients, 73.3% patients have received 6-10 session treatment, 11.7% patients have received 11-15 session, 11.7% patients have received 11-15 session, 3.3% patients have received 1-5 session treatment.

Table 4.7: Participants who received physiotherapy treatment

Physiotherapy session	Number	Percentage (%)
1-5 session	2	3.3
6-10 session	44	73.3
11-15session	7	11.7
>16	7	11.7
Total	**60**	**100**

Incontinence Impact Questionnaire

4.3.1 Ability to household chores

In this study, 23.3% with UI has no effect, 40% has slightly effect, 30% has moderately effect, 6.7% has greatly effect on ability to do household chores.

Table 4.8: Ability to household chores

Ability to household chores	Number	Percentage (%)
Not at all	14	23.3
Slightly	24	40
Moderately	18	30
Greatly	04	6.7
Total	60	100

4.3.2 Physical recreation

In this study, 33.3% with UI has no effect, 38.3% has slightly effect, 21.7% has moderately effect, 6.7% has greatly effect on physical recreation.

Table 4.9: Physical recreation

Ability to household chores	Number	Percentage (%)
Not at all	20	33.3
Slightly	23	38.3
Moderately	13	21.7
Greatly	4	6.7
Total	60	100

4.3.3 Entertaining activities

In this study, 28.3% with UI has no effect, 55% has slightly effect, 10% has moderately effect, 6.7% has greatly effect on entertaining activities.

Table 4.10: Entertaining activities

Ability to household chores	Number	Percentage (%)
Not at all	17	28.3
Slightly	33	55
Moderately	6	10
Greatly	4	6.7
Total	**60**	**100**

4.3.4 Ability to travel

In this study, 18.3% with UI has no effect, 28.3% has slightly effect, 35%has moderately effect, 18.3% has greatly effect on ability to travel .

Figure 4.11: Ability to travel

Ability to household chores	Number	Percentage (%)
Not at all	11	18.3
Slightly	17	28.3
Moderately	21	35
Greatly	11	18.3
Total	**60**	**100**

4.3.5 Participation in social activities

In this study, 38.3% with UI has no effect, 45% has slightly effect, 15% has moderately effect, 1.7% has greatly effect.

Table 4.12: Participation in social activities

Ability to household chores	Number	Percentage (%)
Not at all	23	38.3
Slightly	27	45
Moderately	9	15
Greatly	1	1.7
Total	**60**	**100**

4.3.6 Emotional health

In this study, 18.3% (n=11) with UI has no effect, 31.7% (n=19) has slightly effect, 31.7% (n=19) has moderately effect, 18.3% (n=11) has greatly effect on emotional health.

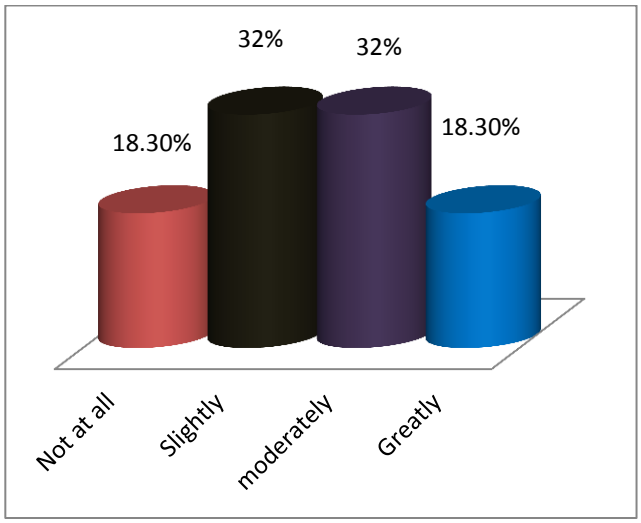


Figure7: Emotional health

4.3.7 Frustration

In this study, 15% (n=9) with UI has no effect, 21.7% (n=13) has slightly effect, 33.3% (n=20) has moderately effect, 30% (n=18) has greatly effect on The mean is 2.7833, mode is 3. Standard deviation is 1.043.

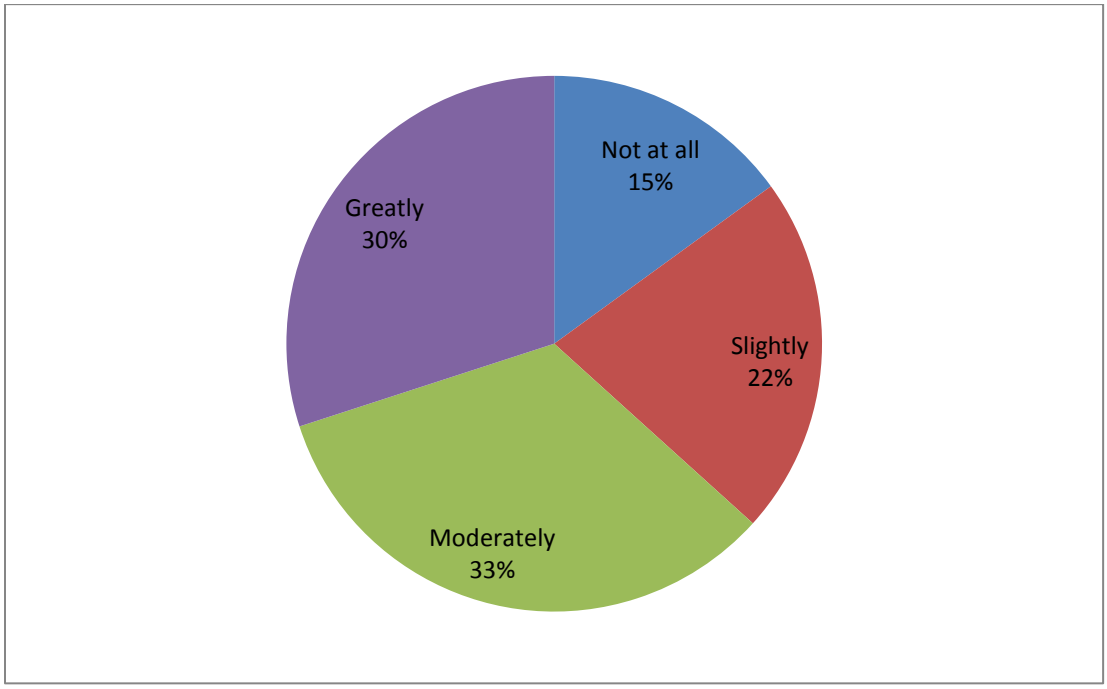


Figure 8: Frustration

Effect of stress and urge urinary incontinence on quality of life after child birth

Table- 4.13 describes the impact of stress of urinary incontinence after child birth. 5% have no effect, 8.3% have slightly effect, 8.3% have moderately effect and 18.3% have greatly effect to do household work. 15% have no effect, 10% have slightly effect, 13.3% have moderately effect and 3.33% have greatly effect to do physical recreation. 13.3% have no effect, 12% have slightly effect 5% have moderately effect and 3.3% have greatly effect to perform entertaining activities. 6.67% have no effect, 13.3% have slightly effect, 15% have moderately effect and 6.67% have greatly effect to travel. 16.67% have no effect, 16.67% have slightly effect, 6.67% have moderately effect and 1.67% have greatly effect to participation in social activities. 8.3% have no effect, 11.67% have slightly effect, 8.3% have moderately effect and 13.3% have greatly effect on emotional health. 5% have no effect, 10% have slightly effect, 8.3% have moderately effect and 18.3% have greatly frustration.

Table 4.13: Describe the impact of stress urinary incontinence in quality of life after child birth

Functions	Not at all	Slightly	Moderately	Greatly
Ability to household chores	3(5%)	5(8.3%)	5(8.3%)	11(18.3%)
Physical recreation	9(15%)	6(10%)	8(13.3%)	2(3.33%)
Entertaining activities	8(13.3%)	12(20%)	3(5%)	2(3.33%)
Ability to travel	4(6.67%)	8(13.3%)	9(15%)	4(6.67%)
Participation in social activities	10(16.67%)	10(16.67%)	4(6.67%)	1(1.67%)
Emotional health	5(8.3%)	7(11.67%)	5(8.3%)	8(13.3%)
Frustration	3(5%)	6(10%)	5(8.3%)	11(18.3%)

Table-4.14 describes the impact of urge of urinary incontinence after child birth. 15% have no effect, 26.67% have slightly effect, 16.67% have moderately effect to do household work. 18.3% have no effect, 28.3% have slightly effect, 8.3% have moderately effect and 3.33% have greatly effect to do physical recreation. 15% have no effect, 35% have slightly effect 5% have moderately effect and 3.3% have greatly effect to perform entertaining activities. 11.67% have no effect, 15% have slightly effect, 20% have moderately effect and 11.67% have greatly effect to travel. 21.67% have no effect, 28.3% have slightly effect, 8.33% have moderately effect effect to participation in social activities. 10% have no effect, 20% have slightly effect, 23.3% have moderately effect and 3% have greatly effect on emotional health. 10% have no effect, 11.67% have slightly effect, 25% have moderately effect and 11.67% have greatly frustration. Work limitation was significant only in urgency urinary incontinence because in stress urinary incontinence they managed to take care of situations where they feel that stress will cause urinary incontinence.

Table-4.14: Describe the impact of urge urinary incontinence in quality of life after child birth

Functions	Not at all	Slightly	Moderately	Greatly
Ability to household chores	9(15%)	16(26.67%)	10(16.67%)	0(0%)
Physical recreation	11(18.3%)	17(28.3%)	5(8.3%)	2(3.3%)
Entertaining activities	9(15.0%)	21(35%)	3(5%)	2(3.3%)
Ability to travel	7(11.66%)	9(15%)	12(20%)	7(11.67%)
Participation in social activities	13(21.67%)	17(28.3%)	5(8.33%)	0(0%)
Emotional health	6(10%)	12(20%)	14(23.3%)	3(5%)
Frustration	6(10%)	7(11.67%)	15(25%)	7(11.67%)

Pearson Correlation test

Table 4.15: Pearson Correlation test between age and quality of life after child birth

Variables	Pearson Correlation (r)	Significant (2-tailed)	Comment
Correlation between Age and Ability to do household work	.811**	.000	Positive correlation present
Correlation between Age and Physical recreation	.681**	.000	Positive correlation present
Correlation between Age and Entertaining activities	.595**	.000	Positive correlation present
Correlation between Age and Ability to travel	.655**	.000	Positive correlation present
Correlation between Age And Participation in social activities	.522**	.000	Positive correlation present
Correlation between Age and Emotional health	.531**	.000	Positive correlation present
Correlation between Age and Frustration	. 610**	.000	Positive correlation present

**Correlation is significant at the 0.01 level (2-tailed)

There have positive correlation between age and physical recreation of women after child birth .Quality of life is decrease with increasing age of women.

CHAPTER-V: DISCUSSION

The aim of the study was to explore the characteristics of UI after child birth of women in CRP. The majority of the respondents 31.6% (n=19) was in 50-59 years of age, 28.4% (n=17) was in 40-49 years of age, 21.6% (n=13) was in 60-69 years of age, 18.3% (n=11) was in 30-39 years of age in this study. Zhu et al., (2009) said that the prevalence of mixed UI increasing with aging, where as the prevalence of SUI peaked in the group of 50 aged women and that of urge UI in the group of 70 years women. Pregnancy and delivery seemed to be risk factors for UI, especially among young and middle-aged women (Wesnes et al., 2017).

Majority of the respondents 38.3% had no formal schooling, 23.3% were completed their primary school certificate 10% were completed secondary school certificate and 11.7% were higher secondary school certificate, 16.7% were Higher degree level in this study. Kasikcia et al. (2015) found in their study that women with urinary incontinence 63.6% (n=696) were illiterate, literate 17.6% (n=193), primary school 16.4% (n=179), Secondary School 2.4% (n=26). Illiteracy were the more risk factor for the urinary incontinence. Educational level played a vital role in UI (Biswas et al., 2017). 33.8% women with UI had 4 years of education, 37.5% 7 years of education, 13.8% had 12 years of education, and 13.8% had a university degree (Even et al., 2018).

Most of the respondents were housewife 91.7% (n= 55) followed by service holder 8.3% (n= 05) in this study. Kasikcia et al. (2015) found their study that 98.3% women were housewife and 1.7% were retired public servant with UI In a other study, house wife 12% (n=27) and Worker 1% (n=8.2) postpartum women with urinary incontinence (Agarwal et al., 2017).

Among them 38.3% (n= 23) participants reported UI during pregnancy in this study. Whitford et al. (2007) found that SUI (53.4%) was most common in 3rd trimester of

pregnancy. Kok et al. (2016) found that the prevalence of UI in pregnant women was 21.3%. Francis et al. (2005) found that the prevalence of UI during pregnancy in primigravida and multigravida women were 53% and 85%. Women with UI during their first pregnancy were more likely to develop UI five years postpartum than those without it (Liang et al., 2013). The prevalence of UI was 52% in young pregnant women aged 25 years or below. The participants experienced UI during pregnancy at the following rates: 73% SUI, 67% UUI, and 20% other UI (Michel et al., 2018).

71.7% (n=43) patients had history of vaginal delivery, 28.3% (n=17) patients had history of cesarean Delivery in this study. Vaginal delivery had been responsible for damage to pelvic floor and thus disturbance in mechanism of urinary continence. Previous delivery route had been shown to be a major risk factor for developing UI during pregnancy. Caesarian delivery was associated with lower rates of stress incontinence than vaginal delivery. The prevalence of urinary incontinence was nearly 4 times higher after vaginal delivery than after caesarean section (Czajkowski et al., 2017)

In this study, 41.7% patients had stress urinary incontinence, 58.3% patients had other types of urinary incontinence. In a study, 22% postpartum women had stress urinary incontinence, 38% had urgency incontinence and 38% had mixed type of urinary incontinence (Agarwal et al., 2017).

In this study, UI showed negative impact on ability to household chores, physical recreation, entertaining activities, ability to travel, participation in social activities, emotional health. Urinary incontinence was a significant health issue in the society responsible to restriction in social and sexual activities. Work limitation, sexual limitation, social limitation present in 21.5% women with SUI, 39.25% present in UUI, 39.25% present in mixed UI. UI had impact on quality of life (Agarwal et al., 2017).

Urinary incontinence (UI) had been a negative effect on quality of life who got normal vaginal delivery. It had negative result in physical and emotional distress, including depression, loss of self-esteem, and social isolation (Johannessen et al., 2018). UI after childbirth showed a negative impact on the quality of life in those women who were vaginally delivered (Lin et al., 2018).

PFMT was recognized as the first-line prevention and treatment for pre- and postpartum UI (Sun et. al., 2018). Sangsawang et al. (2012) showed that the important of pelvic floor muscle exercises were effective for prevention of UI development during pregnancy and in the postpartum period.

Study limitation:

- The urinary incontinence classifications used are based entirely on patients' reports of symptoms; there was no urodynamic testing to confirm the type of incontinence.

- The design of the present study was cross-sectional, and the evaluations were performed at only one point in time.

- Data collection of this study only in one hospital.

- The women felt shy to give information on this condition.

- The sample size is smaller than actual requirement of the study.

CHAPTER-VI: CONCLUTION AND RECOMMENDATIONS

6.1 Conclusion

Urinary incontinence (UI) is defined by the international continence society as "a condition in which involuntary loss of urine is objectively demonstrable and is a social and hygiene problem.1 It is a common and distressing medical condition severely affecting quality of life (QOL).Women with UI during their first pregnancy were more likely to develop UI five years postpartum than those without it. The aim of the study was to explore characteristics of urinary incontinence after child birth attended at CRP-mirpur. This study shows that UI is mostly occurred in the ages of 50-59 years old women after child birth. Majority of the respondents 38.3% have no formal schooling in this study. The prevalence of UI among previous vaginal delivery route and previous cesarean delivery route is 71.7% (n=43) & 28.3% (n=17). Direct and indirect trauma to the pelvic floor muscles and nerve pathways during vaginal delivery has a negative impact on pelvic floor function (Johannessen et al., 2018). That means history of previous vaginal delivery route is the risk factor of UI after child birth. Majority of the respondent 58.3% suffer from UUI, 41.7% are suffering from stress urinary incontinence. The housewives (91.7%) women suffer from UI. Urinary incontinence has negative role in performing quality of life women after child birth. Charalambous et al. (2009) found that low self-confidence, feeling ashamed, embarrassed are found in women with UI. In this study it was found that participants received physiotherapy after child birth. But they did not aware to continuing the physiotherapy treatment for this condition.

6.2 Recommendation

Like other countries, UI is likely to be an upcoming burden for Bangladesh. For this reason, it is important to develop research based evidence of physiotherapy practice in this area. Physiotherapist's practice which is evidence based in all aspect of health care. Presently, lots of NGOs working on disability are included the services of physiotherapy. But physiotherapy for gynecology induced UI is newly introduced in Bangladesh. It is crucial to develop research based findings about the prevalence of the UI among the pregnant women. This study can be considered as a ground work for the physiotherapy service provision for the women after child birth with UI. Proper physiotherapy can reduce pregnancy related UI and prevents post partum complications. There are few studies on obstetrics area. These cannot cover all aspect of the vast area. So, it is recommended that the next generation of physiotherapy members continue study regarding this area, this may involve-use of large sample size and participants form different districts of Bangladesh. Conduct research on other maternal health problems where physiotherapist can work. The Government should aware the people about physiotherapy in obstetrical area, and create post in government hospitals and community hospital.

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APPENDIX

Appendix-I: Informed Consent (English)

VERBAL CONSENT FORM

(Please read out to the participant)

Assalamualaikum,

I am Siddiqua Syeda Ummul. I am 4th year student of Bangladesh Health Professions Institute (BHPI), University of Dhaka. For achieve Bachelor degree, I have to a research and that is a part to my study.

My study title is "Explore the characteristics of urinary incontinence after child birth**."**To implement my research project, you need some personal and incidental information. I request you to become a participant in my research. This will take approximately 15 minutes.

I would like to inform you that this is an institutional research and will not used for any other purpose. I make sure all information is kept confidential. You can withdraw yourself from research at any time.

If you have any query about the study or your right as a participant, you may contact with me and/or my supervisor Mst. Fatema Akter, Senior Lecturer of Physiotherapy, BHPI, CRP, Savar, Dhaka-1343.

Do you have any questions before I start?

…….....

Signature of the participant: …….. Date……

Signature of the researcher: …… Date…….

Questionnaire (English)

Research Title: Explore the characteristics of urinary incontinence after child birth.

Personal questionnaire

Patient Name:

Patient ID:

Permanent address: village- Post office-

Thana- District-

Present address: village- post office-

Thana- District-

Phone no-

Name of Interviewer:

Patients Socio-Demographic Information

Serial no	Question	Coding category
1	What is your current age?	a) 30-39 years b) 40-49 years c) 50-60 years d) 60-69years
2	What is your educational qualification?	a) No formal schooling b) Primary c) S.S.C completed d) H.S.C completed e) Graduation
3	Residential Area	a) Rural b) Urban
4	What is your occupation?	a) Housewife b) Service holder

Sample related Questions

Serial No.	Question	Coding Category
1	Did you have urinary incontinence before pregnancy?	a) Yes b) No
2	Did you have urinary incontinence during pregnancy?	a) Yes b) No
3	Which route of the delivery occurred?	a) Caesarian b) Vaginal
4	When does the urine loss occur?	a) Day time only b) Night time only c) Both day and night time
5	Frequency of urine leak-	a) About once a weak or less often b) Two or three times a week c) About once a day d) Several times a day e) All the time
6	When you loss urine, does it usually:	a) Just create some moisture b) Wet your underwear c) Trickle down your thigh d) Wet the floor
7	When you leak urine, in which character you lose it?	a) Droplets b) Overflow

8	Amount of urine leak:	a) Few drops to less than ½ teaspoon b) ½ teaspoon to less than 2 tablespoons c) 2 tablespoons to ½ cup d) ½ cup or more
9	Generally, how many times do you usually urinate from the time you wake up to the time before you go to bed?	a)<6 times b)6-12 times c)13-18 times d)>18 times
10	Generally, how many times do you usually urinate after you have gone to sleep at night?	a) 1-2 times b) 3-4 times c) >4 times
11	Does your urine leak out with coughing or sneezing?	a) Yes b) No
12	Protection or changes:	a) No pads or protection and No change of undergarments all day b) Pads only if have a cold or going out c) Pads or protection, changing once a day d) Pads or protection everyday, changing twice a day e) Pads or protection everyday, changing three times or more times per day f) Large pads (e.g- Diapers)
13	Have you received treatment for your bladder symptom?	a) Yes b) No
14	If 'yes' please specify:	a) Medication b) Surgery c) Physiotherapy d) No treatment is taken
15	How session physiotherapy you have taken?	a) 0 session b) <5 session c) 6-10 session d) >10 session

Incontinence Impact Questionnaire

Has urine leakage (incontinence) affected your:

	Not at all	Slightly	Moderately	Greatly
Ability to do household chores (cooking, housecleaning, laundry)	1	2	3	4
Physical recreation such as walking, swimming, or others exercise?	1	2	3	4
Entertaining activities (movies, concerts, etc.)	1	2	3	4
Ability to travel by car or bus more than 30 minutes from home?	1	2	3	4
Participation in social activities outside your home?	1	2	3	4
Emotional health (nervousness, depression)	1	2	3	4
Feeling frustrated?	1	2	3	4

সম্মতিপত্র

(অংশগ্রহনকারীকে পড়ে শোনাতে হবে)

আসসালামুআলাইকুম/ নমস্কার,

আমি সিদ্দিকা সাইয়্যেদা উম্মুল, ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা অনুষদের অধীনে বাংলাদেশ হেলথ প্রফেশনাল ইন্সটিটিউট (বিএইচপি আই) এর ফিজিওথেরাপি ৪র্থ বষের ছাত্রী। স্নাতক ডিগ্রি অজনের জন্য আমাকে একটি গবেষণা সম্পাদন করতে হবে এবং এটা আমার অধ্যয়নের একটি অংশ।

আমার গবেষণার শিরনাম৬প্রসোবত্তর নিয়ন্ত্রণহীন মূত্র জনিত সমস্যার বৈশিষ্ট্য অণ্বেষন করন্ব। আমার গবেষণা প্রকল্প বাস্তবায়নের জন্য, আপনার কিছু ব্যক্তিগত ও আনুষঙ্গিক কিছু তথ্য প্রয়োজন। আপনাকে আমার গবেষণায় অংশগ্রহণকারী হওয়ার জন্য অনুরোধ করছি । এতে সময় লাগবে প্রায় ১৫ মিনিট।

আমি আপনাকে অবগত করতে চাই যে, এটি একটি প্রাতিষ্ঠানিক গবেষণা এবং অন্য কোনো উদ্দ্যেশ্যে ব্যবহত হবে না। আমি নিশ্চিত করছি সকল তথ্যগুলো গোপন থাকবে। আপনি যে কোনো সময় নিজেকে গবেষণা থেকে নিজেকে প্রত্যাহার করতে পারেন।

একজন অংশগ্রহনকারী হিসাবে, যদি অধ্যায়ন সম্পর্কে কোনো প্রশ্ন থাকে তাহলে আমাকে বা আমার সুপারভাইজার ফাতেমা আক্তার , সিনিয়র প্রভাষক , ফিজিওথেরাপি অনুষদ, বি এইচ পি আই, সাভার, ঢাকা, ১৩৪৩ এর সাথে যোগাযোগ করতে পারেন ।

আমি শুরু করার আগে কোন প্রশ্ন আছে?

.....

অংশগ্রহনকারীর নাম..... তারিখ.....

অংশগ্রহনকারীর সাক্ষর..... তারিখ.....

প্রশ্নাবলী (বাংলা)

গবেষণার শিরনামঃ প্রসোবত্তর নিয়ন্ত্রণহীন মূত্র জনিত সমস্যার বৈশিষ্ট্য অণ্বেষন করা ।

ব্যক্তিগত বিবরণ

রোগীর নামঃ

রোগীর আইডিঃ

স্থায়ী ঠিকানাঃ গ্রাম- ডাকঘর-

থানা- জেলা-

বর্তমান ঠিকানাঃ গ্রাম- ডাকঘর-

থানা- জেলা-

মোবাইল নাম্বারঃ

সাক্ষাতগ্রহণকারীর নামঃ

সামাজিক বিষয়ক তথ্যবলি

প্রশ্ন	উত্তর
আপনার বয়স	ক) ৩০-৩৯ বছর খ) ৪০-৪৯ বছর গ) ৫০-৫৯ বছর ঘ) ৬০-৬৯ বছর
আপনার শিক্ষগত যোগ্যতা	ক) কোনো প্রাতিষ্ঠানিক শিক্ষা নাই খ) প্রাথমিক শিক্ষা গ) মাধ্যমিক শিক্ষা ঘ) উচ্চ মাধ্যমিক শিক্ষা ঙ) স্নাতক ডিগ্রী
আবাসিক এলাকা	ক) গ্রাম খ) শহর
আপনার পেশা কি?	ক) গৃহিণী খ) চাকুরীজীবী

নমুনা সংক্রান্ত প্রশ্নসমূহ

প্রশ্ন	উত্তর
গর্ভধারণের আগে আপনার অনিয়ন্ত্রিত মূত্রজনিত কোনো সমস্যা ছিল?	ক) হ্যাঁ খ) না
গর্ভ সময়ে আপনার অনিয়ন্ত্রিত মূত্রজনিত কোন সমস্যা ছিল?	ক) হ্যাঁ খ) না
আপনার সন্তান কোন পথে হয়েছিল?	ক) সিজারিয়ান খ) ভেজাইনাল
কখন আপনার মূত্র বের হয়?	ক)শুধুমাত্র দিনের সময় খ) শুধুমাত্র রাতের সময় গ) উভয় দিন ও রাতের সময়
কতবার আপনার মূত্র বের হয়?	ক) সপ্তাহে একবার খ) সপ্তাহে দুই বা তিনবার গ) দিনে একবার ঘ) দিনে বেশ কয়েকবার ঙ) সবসময়
যখন আপনার মূত্র বের হয় এটা সাধারণত আপনার -	ক) শুধু কিছু আর্দ্ররতা তৈরি খ) আপনার অর্ন্তবাস ভেজায় গ) আপনার ঊরুতে চুইয়ে পড়ে ঘ) মেঝে ভেজায়
যখন আপনার মূত্র বের হয়, তখন তা কোন ধরণের হয়ে থাকে?	ক) ফোঁটায় ফোঁটায় খ) অত্যাধিক নিঃসরণ

সজাগ অবস্থায় যখন আপনার নিয়ন্ত্রণহীন মূত্রজনিত সমস্যাগুলো হয়, তখন প্রতি সময়ে কতটুকু মুত্র আপনার নিয়ন্ত্রণের বাইরে বের হয় বলে মনে করেন?	ক) কয়েক ফোঁটা থেকে ১/২ চামচের কম খ) ১/২ থেকে ২ টেবিল চামচের কম গ) ২ টেবিল চামচ থেকে ১/২ কাপ ঘ) ১/২ কাপ বা তার বেশি
আপনি সাধারণত জেগে উঠার সময় থেকে ঘুমাতে যাওয়ার আগ পর্যন্ত সময়ে কতোবার মূত্র করে থাকেন?	ক) <৬ বার খ) ৬-১২ বার গ)১৩-১৮ বার ঘ) >১৮ বার
আপনি রাতে ঘুমাতে যাওয়ার পরে সাধারণত কতোবার মূত্র করে থাকেন?	ক)১-২ বার খ)৩-৪ বার গ)>৪ বার
আপনার হাঁচি বা কাশির সাথে মূত্র বের হয়ে আসে?	ক) হ্যাঁ খ) না
আপনি নিরাপদ বোধ করতে কি ব্যবহার করেন?	ক) কোন কিছুই না খ) ন্যাপকিন ব্যবহার করেন ঠাণ্ডা আবহাওয়ায় বা বাইরে বের হলে গ) ন্যাপকিন প্রতিদিনই ব্যবহার করেন এবং একবার পরিবর্তন করেন ঘ) ন্যাপকিন প্রতিদিন ব্যবহার করেন এবং দিনে ২ বার পরিবর্তন করেন ঙ) ন্যাপকিন প্রতিদিন ব্যবহার করেন এবং ৩ বা অধিকবার পরিবর্তন করেন চ) আকারে বড় ন্যাপকিন (যেমন- ডাইপার)

আপনি আপনার নিয়ন্ত্রণহীন মূত্রজনিত সমস্যার চিকিৎসা নিয়েছেন কি না?	ক) হ্যাঁ খ) না
কি ধরণের চিকিৎসা নিয়েছিলেন?	ক) মেডিসিন খ) সার্জারি গ) ফিজিওথেরাপি
কতো সেশন ফিজিওথেরাপি নিয়েছেন ?	ক) ০-৫সেশন খ) ৬-১০ সেশন গ) ১০-১৫ সেশন ঘ) >১৬ সেশন

প্রভাবজনিত প্রশ্নসমূহ

অনিয়ন্ত্রণহীন মূত্রজনিত সমস্যা প্রভাব,আপনারঃ

প্রশ্ন	একদমই না	অল্প প্রভাব	একটু বেশি প্রভাব	খুব বেশি প্রভাব
গৃহস্থলির কোন কাজে কোন প্রভাব ফেলে? (রান্না, গৃহ পরিষ্কার ইত্যাদি)	১	২	৩	৪
শারীরিক বিনোদন যেমন সাঁতার , ব্যায়াম ইত্যাদিতে কোন প্রভাব ফেলে?	১	২	৩	৪
বিনোদনমূলক কার্যক্রম (সিনেমা, কনসার্ট ইত্যাদি)	১	২	৩	৪
বাড়ি থেকে ৩০ মিনিটেরও বেশি গাড়ি বা বাসে ভ্রমণ করতে পারেন ?	১	২	৩	৪
বাড়ির বাইরে গিয়ে সামাজিক কার্যক্রমে অংশগ্রহণ করতে পারেন?	১	২	৩	৪
মানসিক অসুস্থ যেমন স্নায়ুবিক দুর্বলতা, বিষন্নতা বোধ করেন?	১	২	৩	৪
আপনি কি হতাশ বোধ করেন?	১	২	৩	৪

11 May 2019

The Centre Manager,

CRP- Mirpur,

Mirpur-14, Dhaka.

Through: Head, Department of physiotherapy.BHPI.

Subject: Prayer for seeking permission to collect data to conduct a research study.

Sir,

With due respect to state that I am a regular student of 4th year B. Sc in physiotherapy in Bangladesh Health Professional Institute (BHPI). The Ethical committee has approved my research project title on "**Explore the characteristic of urinary incontinence after child birth**" under supervision of Mst. Fatema Akter , Senior lecturer , Department of Physiotherapy. My honorable teachers have suggested to collect the required data from Gynecological and Women's health unit at CRP, Mirpur branch. So I need permission for data collection from this respective unit. Anything of the study will not be harmful for the participants, I would like to assure that.

So, I therefore pray and hope that you would be kind enough to grand my request and give me the permission for data collection and oblige thereby.

Your faithfully

Siddiqua Syeda Ummul

Siddiqua Syeda Ummul

Session :2014-2015; Roll no- 06.

4th year B.Sc in Physiotherapy

Bangladesh Health Professions Institute (BHPI)

Forwarded & Recommended

16.05.19

Prof. Md. Obaidul Haque
Head, Department of Physiotherapy
BHPI, CRP, Savar, Dhaka-1343

16.05.19

Incharge (PT) Br

Please do if needful.

23.05.19

2276

Date: 25/05/2019

The Chairman
Institutional Review Board (IRB)
Bangladesh Health Professions Institute (BHPI)
CRP-Savar, Dhaka-1343, Bangladesh

Subject: **Application for review and ethical approval.**

Sir,

With due respect I would like to draw your kind attention that I am a student of B.Sc. in Physiotherapy at Bangladesh Health Professions Institute (BHPI)- an academic institute of CRP under Faculty of Medicine of University of Dhaka (DU). I have to conduct a thesis entitled "**Explore the characteristic of urinary incontinence after child birth**" under honorable supervisor, Mst. Fatema Akter, Senior lecturer, Department of Physiotherapy, BHPI, CRP, Savar, Dhaka-1343, Bangladesh. The purpose of the study is to determine socio demography history, frequency, time, character, amount of urine loss, impact of ability to household activities, entertaining activities for UI patients.

The study involves use of "Incontinence impact questionnaire" to explore the characteristic of urinary incontinence after child birth that may take 20 to 25 minutes to answer for collection of specimen. There is no likelihood of any harm to the participants. Related information will be collected from the patients' guide books. Data collectors will receive informed consents from all participants. Any data collected will be kept confidential.

Therefore I look forward to having your kind approval for the thesis proposal and to start data collection. I can also assure you that I will maintain all the requirements for study.

Sincerely,
Siddiqua Syeda Ummul Siddiqua Syeda Ummul
4th year Student of B. Sc in physiotherapy
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Recommendation from the thesis supervisor:

Mst. Fatema Akter
Senior lecturer , Department of Physiotherapy
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)
(The Academic Institute of CRP)
CRP-Chapain, Savar, Dhaka-1343. Tel: 02-7745464-5, 7741404

Ref: CRP-BHPI/IRB/09/19/1347

Date: 18/09/2019

To
Siddiqua Syeda Ummul
B.Sc. in Physiotherapy
Session: 2014-15, Student ID:112140238
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Approval of the thesis proposal **"Explore the characteristics of Urinary Incontinence after child birth"** by ethics committee.

Dear Siddiqua Syeda Ummul,

Congratulations.
The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above mentioned dissertation, with yourself, as the Principal investigator. The Following documents have been reviewed and approved:

Sr. No.	Name of the Documents
1	Dissertation Proposal
2	Questionnaire (English version& Bangla version)
3	Information sheet & consent form.

The study involves use of a questionnaire to explore the characteristics of Urinary Incontinence after child birth that may take 15 to 20 minutes to answer the questionnaire and there is no likelihood of any harm to the participants. The members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 10.00AM on 11th August, 2018 at BHPI.

The institutional Ethics committee expects to be informed about the progress of the study, any changes occurring in the course of the study, any revision in the protocol and patient information or informed consent and ask to be provided a copy of the final report. This Ethics committee is working accordance to Nuremberg Code 1947, World Medical Association Declaration of Helsinki, 1964 - 2013 and other applicable regulation.

Best regards,

Muhammad Millat Hossain
Assistant Professor, Dept. of Rehabilitation Science
Member Secretary, Institutional Review Board (IRB)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh