

Hierarchy of Cause and Effect Relationship of Women with Urinary Incontinence: A Problem Tree Analysis



Shamima Islam Nipa
Bangladesh Health Professions Institute (BHPI), CRP,
Bangladesh

Shamima Islam Nipa^{1,2*}

¹Lecturer, Department of Rehabilitation Science, Bangladesh Health Professions Institute (BHPI), CRP, Bangladesh

²PhD candidate, Bio-Medical Science, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand

COLUMN ARTICLE

Problem statement

Urinary incontinence is an involuntary leakage of urine from the urinary bladder [1]. There are several types of urinary incontinence such as stress urinary incontinence, urge incontinence and mixed urinary incontinence [2].

According to International Classification of functioning Disability and Health (ICF), the approved system of World Health Organization, (2002) a non-functioning pelvic floor muscle affects the women's quality of life by reducing participation in physical and social activities.

It is an important sector to work with this disability. Therefore, it has determined to develop a problem tree through which it will identify the possible causes and the effect and consequence of it on the quality of life of women with urinary incontinence.

Causes and the consequences of the problem

Problem analysis is the determination of the significant problem and identify the possible causes and effects of that problem as well. the determined problem considered

as "Urinary Incontinence". At there the determined target group was "women with urinary incontinence".

Pregnancy make the pelvic floor weak. It increases the intra-abdominal pressure and continues after childbirth as the levator ani muscle becomes weaker due to carry out the baby for a long time. As a result, pelvic organ function decreased and caused urinary incontinence [3].

Urinary Incontinence may occur due to vaginal delivery, because vaginal delivery may cause the rupture or damage of pelvic floor muscles, nerves, urethra and surrounding structures as well [4]. Number of deliveries also might act as a cause of urinary incontinence as the frequent pregnancy would create more damage of the urethra and surrounding structures. Peyrat., *et al.* (2002) suggested that, the number of pregnancies was a statistically significant risk factor among the women with urinary incontinence [5].

Miscarriage may occur due to abnormal hormone levels, blood clotting disorders and infection. It has shown that in miscarriage, cervix is open soon. On the other hand, sometimes the uterus shaped abnormally. These factors would create the pressure on the top of the bladder. Therefore, urinary incontinence happens after miscarriage [6].

Sometimes, women required vaginal expiration or hysterectomy. Literature showed that it act as one of a significant factor for the urinary incontinence [7].

Physical abuse or trauma would also cause of urinary incontinence. Throughout the traumatic history, the pelvic organ would rupture which facilitate the urinary incontinence [8].

Age and obesity influence the bone density or lack of movement. As a result, women are not willing to move and lack of movement enhances the pelvic floor weakness. Study suggested these women are more prone to suffer by urge urinary incontinence [9].

Eliasson., *et al.* (2008) had done a study in Sweden, about urinary incontinence in women with low back pain, aged between 17 and 45 years. They found the practical association between Low Back Pain (LBP) and Urinary Incontinence (UI) [10].

Yerkes (1998) stated that, diabetes mellitus causes the neuro-genic bladder is considered a form of autonomic neuropathy. Autonomic neuropathy gradually decreased the motor function of urinary bladder and increased the sensation of full of bladder. As a result, it causes the urgency of urine at almost time [11].

Women, who take alpha blocker for their hypertension, would act as cause of urinary incontinence. It is known that alpha blocker relaxes the muscles as well as the bladder neck. Therefore, it enhances the urine flow [12].

There are several diseases related to kidney functions. To keep urine from leaking, sphincters of the kidney close tightly around the opening of the bladder. If the structure of the kidney changes, for any disease condition, then muscles usually not work properly. As a result, urge urinary incontinence would happen [13].

Neuronal systems control the psychological strain. The descending serotonin pathways from the brain stem inhibit bladder contractions. Therefore, when the women would have psychological strain, then they would have urinary incontinence. Literature showed that, depression and incontinence are associated in middle-aged women [14].

Effects and impacts of causes of the problem

Urinary Incontinence may cause of periodic or constant urinary dribbling. Therefore, women suffering with urinary incontinence usually are not willing to go outside of home, which reduce their social participation [15].

During doing any heavy work, urinary incontinence or dribbling hampered those activities. Urinary dribbling is embarrassing to work with the wet garments. Moreover, changing garments would also interrupt with the time and rhythm during physical activities. It would have a negative impact on the social participation as well [16].

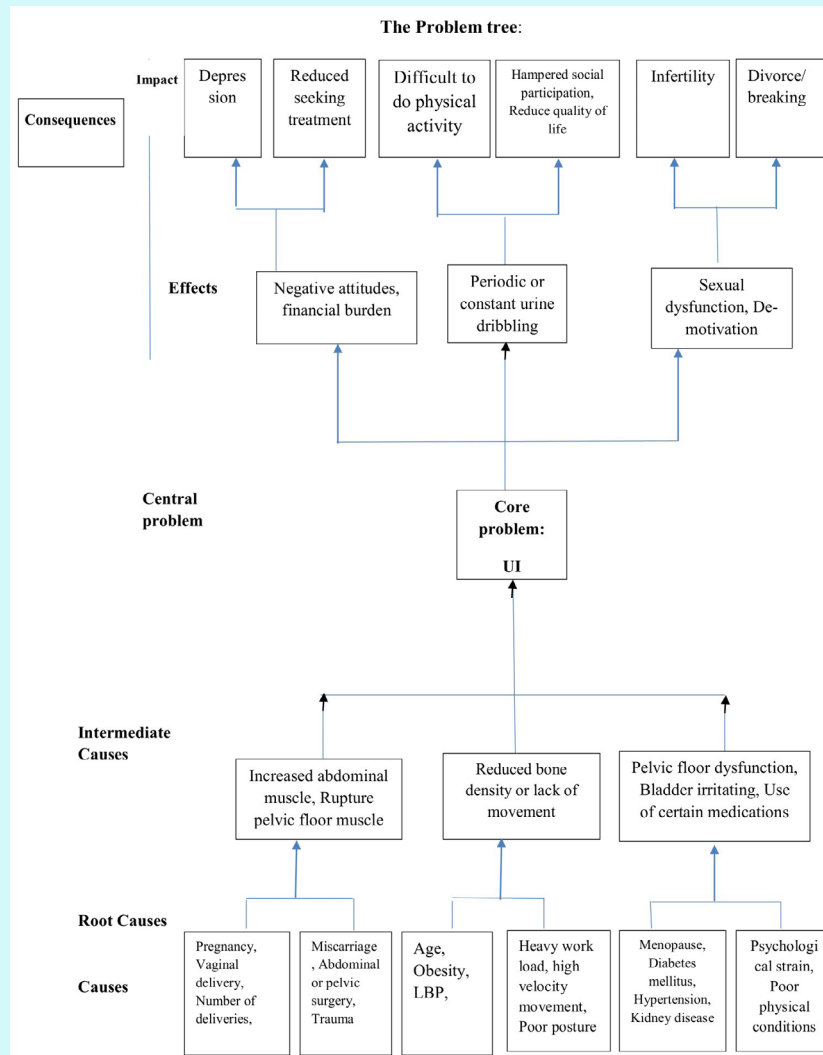
In addition, one of the common consequence of the urinary incontinence is sexual dysfunction and de-motivation. About 19% women faced difficulty in sexual function because of urinary incontinence. At there, only 27.1% women had argued for seeking any health service for urinary incontinence to overcome this problem. On the other hand, when people were suffering from sexual dysfunction, it would enhance the depression and de-motivation to maintain a good conjugal life. Therefore, there would have loss of affection or disconnection among the couple [17].

Women, suffering from urinary incontinence, majority of them have to face the negative attitudes Hagglund and Wadensten (2007) had done a study on "Fear of humiliation inhibits women's care-seeking behavior for long-term urinary incontinence". This study focused that women usually lived with shame among themselves for their urinary incontinence. Women were also in fear with that; their husbands would seek the altered sexual relationships and distance from them. Therefore, their care-seeking behavior negatively influenced [18].

On the other hand, treatment or management of urinary incontinence acts as burden for women with urinary incontinence. There was a study of United States and suggested that urinary incontinence increased 25% of living cost [19].

CONCLUSION

To determine the proper analysis of the existing situation, it is necessary to determine the problems of that sit-



uation. Some causes created the problem and there would have some effects of that problem as well. Problem tree is a visualized tool that gives a snap shot to develop an idea about the cause and effect relationship of that core-problem. The findings of the problem tree would utilize to understand the extent of distribution of the problem, priority setting, allocation of resources and planning for the intervention.

BIBLIOGRAPHY

1. Neveus T., et al. "The standardization of terminology of lower urinary tract function in children and adolescents: report from the Standardisation Committee of the International Children's Continence Society". *The Journal of Urology* 176.1 (2006): 314-324.

2. Rosenbaum TY and Owens A. "Continuing Medical Education: The Role of Pelvic Floor Physical Therapy in the Treatment of Pelvic and Genital Pain-Related Sexual Dysfunction (CME)". *The Journal of Sexual Medicine* 5.3 (2008): 513-523.
3. Bo K. "Pelvic floor muscle training is effective in treatment of female stress urinary incontinence, but how does it work?" *International Urogynecology Journal* 15.2 (2004): 76-84.
4. Meyer S, et al. "The effects of birth on urinary continence mechanisms and other pelvic-floor characteristics". *Obstetrics and Gynecology* 92.4 (1998): 613-618.
5. Peyrat L, et al. "Prevalence and risk factors of urinary incontinence in young and middle-aged women". *BJU International* 89.1 (2002): 61-66.
6. Kristiansson P, et al. "Reproductive hormones and stress urinary incontinence in pregnancy". *Acta Obstetrica et Gynecologica Scandinavica* 80.12 (2001): 1125-1130.
7. Melville JL, et al. "Urinary incontinence in US women: a population-based study". *Archives of Internal Medicine* 165.5 (2005): 537-542.
8. Brown JS, et al. "Urinary incontinence: does it increase risk for falls and fractures?" *Journal of the American Geriatrics Society* 48.7 (2000): 721-725.
9. Hunskaar S and Vinsnes A. "The quality of life in women with urinary incontinence as measured by the sickness impact profile". *Journal of the American Geriatrics Society* 39.4 (1991): 378-382.
10. Eliasson K, et al. "Urinary incontinence in women with low back pain". *Manual Therapy* 13.3 (2008): 206-212.
11. Yerkes AM. "Urinary incontinence in individuals with diabetes mellitus". *Diabetes Spectrum* 11.4 (1998): 241-247.
12. Burgio KL, et al. "Combined behavioral and drug therapy for urge incontinence in older women". *Journal of the American Geriatrics Society* 48.4 (2000): 370-374.
13. Irwin DE, et al. "Population-based survey of urinary incontinence, overactive bladder, and other lower urinary tract symptoms in five countries: results of the EPIC study". *European Urology* 50.6 (2006): 1306-1315.
14. Nygaard I, et al. "Urinary incontinence and depression in middle-aged United States women". *Obstetrics and Gynecology* 101.1 (2003): 149-156.
15. Chen GD, et al. "Prevalence and correlation of urinary incontinence and overactive bladder in Taiwanese women". *Neurourology and Urodynamics* 22.2 (2003): 109-117.
16. Burgio KL, et al. "Prevalence, incidence and correlates of urinary incontinence in healthy, middle-aged women". *The Journal of Urology* 146.5 (1991): 1255-1259.
17. Ter-Grigorian AA, et al. "Urogenital disorders after pelvic ring injuries". *Central European Journal of Urology* 66.3 (2013): 352-356.
18. Hagglund D and Wadensten B. "Fear of humiliation inhibits women's care-seeking behaviour for long-term urinary incontinence". *Scandinavian Journal of Caring Sciences* 21.3 (2007): 305-312.
19. Broome BA. "The impact of urinary incontinence on self-efficacy and quality of life". *Health and Quality of Life Outcomes* 1.1 (2003): 35.

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