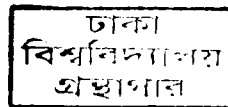


PSYCHOLOGICAL MANAGEMENT OF ENURESIS

A Dissertation

**Submitted to the Department of Clinical Psychology, University of Dhaka, in
partial fulfilment of the requirements for the degree of Masters of Philosophy
in Clinical Psychology.**

449243



Submitted by



Ismat Jahan

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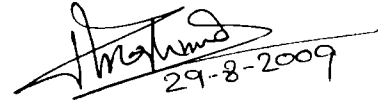


APPROVAL SHEET

This is to certify that I have read the dissertation entitled “Psychological Management of Enuresis” submitted by Ismat Jahan, in partial fulfilment of the requirements for the degree of M.Phil in Clinical Psychology, University of Dhaka. The research was carried out by her under my guidance and supervision.

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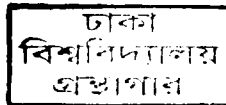
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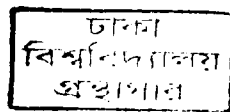
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Dedicated to

My dearest mother, Jasmin Ara and the memories of my
father, Farazee Mohammad Moqbul Hossain.

449343



Title: Psychological Management of Enuresis.

ABSTRACT

In twentieth century the term 'Enuresis' is widely conceptualised as 'Biobehavioral Problem'. According to DSM-IV-TR, enuresis can be defined as the repeated voiding of urine into the bed or clothes at least twice per week for not less than three consecutive months in a child who is at least 5 years of age. The Management of enuresis includes pharmacological, psychological as well as behavioral management (Sanborn, 2002). Psychological management is a psychological model & principles based strategies that help to reduce the psychological problem as well as enuretic behavior of an individual. The main objective of the present research was to find out the ways to reduce the problem of enuresis by applying psychological management principles. To fulfil this objective, the researcher selected 6 enuretic children where 3 were males and 3 were females as the participant through purposive incidental sampling. Their age range was between 5 years 8 months to 10 years 10 months and all of the participants came from Dhaka and among them 5 cases were from upper middle class and 1 case was from lower middle class. Among the six participants, 4 were diagnosed as 'primary nocturnal enuresis', 1 was 'both primary nocturnal and diurnal enuresis' and only 1 participant was 'secondary nocturnal enuresis'. In the present study, in-depth interview, parent-recording chart, self-monitoring chart and 'Attitude Towards Enuresis' (Radhika & Thomas, 1999), 'Toilet Training Practice Scale' (Radhika & Thomas, 1999) were used to assess the participant's problems and to understand the contributing factors of the problem and to monitor the change. Further, subjective rating scale (0-100) was also used to measure the degree of other psychological problems and to monitor the progress. The present research observed that deep sleep, positive family history, low self-esteem were present in 66.67% cases; urinary track infection, suppressed aggression, stubbornness were found in 50% cases, irresponsibility, lack of interest to go to toilet, fear of toilet, low bladder functioning, anxiety, premature baby were shown in 33.33% cases and in 16.67% cases low mood, restlessness, obesity, attention seeking, constipation, developmental delay as well as sexual assault were found as contributing individual factors. Overlapping approach for solving enuresis, lack of proper toilet training were present

in 83.33% participants; negative parental attitudes, over indulgent parenting, Inconsistent parenting, poor parental adjustment in 33.33% cases and in 16.67% cases poor attachment with parents, over protective parenting were found as contributing interpersonal factors. Besides these, inconsistent reinforcement was present in 100% cases, low parental self-confidence, unrealistic expectation about bladder control, low maternal education were found in 83.33% cases; uncommon issue in family, high family stress were found in 33.33% cases and low parental self efficacy was found in 16.67% cases as contributing contextual factors. These findings indicated that all these factors played a significant role on the problem of enuresis. For managing these factors, psychological as well as behavioral principles based management were used to reduce nocturnal enuresis. Psychoeducation, scheduled waking, cleanliness and rewards system, fluid restriction, dry bed training is used for reducing the problem and retention control training and over-learning training is used for relapse prevention. Besides these, in some cases role play and in most of the cases creative therapy were used for increasing motivation to change themselves. It was also observed that the outcome of psychological principles based management was satisfactory in all of the cases, it could bring 88.33% to 100% change in bedwetting frequency and it reduced also the chances of relapse within 9 to 14 sessions. Moreover, psychological principles based interventions also minimised the adverse emotional, behavioral and social consequences of enuresis. So, it can be said that psychological principles based management can overcome the problem of enuresis and can reduce the chances of relapse as well as re-establish children's self-esteem. Finally the present research recommended that psychological management could be brought a positive and potential outcome in enuresis.

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CHAPTER ONE

Introduction

Around the world lots of children and few of adolescent suffer from enuresis, which create concern among children and their parents. Enuresis can be defined as involuntary urination in beds or cloths beyond the age of anticipated bladder control. This term is widely conceptualized as 'Biobehavioral Problem' in Twentieth century. Several epidemiological studies showed that around the world 2.3% to 25% population suffered from enuresis. It is a socially disruptive and stressful condition that affects around 15-20% of five year olds, and up to 1-2% of young adults (Barclay and Houts, 1995). Although there is a high rate of spontaneous remission, the social, emotional and psychological costs can be great.

Psychological management especially behavioral principles based management such as psychoeducation, scheduled waking, cleanliness and rewards system, and fluid restriction, dry bed training were widely used for treating the problem of enuresis and retention control training and over-learning training were widely used for relapse prevention. In this section, the enuresis and its psychological management would be described elaborately.

1. Child Psychological Problems

1.1 Definition of child psychological problems

Child psychiatry or psychological problems or disturbances is concerned with the assessment and treatment of children's emotional and behavioural problems. These problems are very common with prevalence rates of 10-20% in several community studies. Psychological disturbance in childhood is most usefully defined as an abnormality in at least one of three areas: emotions, behaviours or relationships and development (Das, 1993).

According to Oxford Textbook of Psychiatry, in childhood the distinction between disturbance and normality is often imprecise or arbitrary. Isolated symptoms are common and not pathological. Another distinctive feature of childhood psychiatric disturbance is that several factors rather than one contribute to the development of disturbance (Gelder, Gath, Mayou, & Cowen, 1996). For example: repeated bed-wetting can be regarded as normal in a two years old child but abnormal in a child aged six, whilst separation from parents is more likely to affect a toddler than an older child. Etiological factors are usually categorized into two groups, constitutional and environmental. The former include hereditary factors, intelligence and temperament. The three major environmental influences are the family, schooling and the community. Another factor physical illness or disability, if present, can have a profound effect on the child's development and on his vulnerability to disturbance.

1.2 Classification of child psychological problems

Both DSM-IV-TR (APA, 2000) and ICD 10 (WHO, 1996) contain a scheme for classifying the psychiatric disorders of childhood and adolescence. Many child psychiatric disorders cannot be classified in a satisfactory way by allocating them to a single category. Therefore multiaxial system had been proposed. In DSM-IV-TR described, Axis I- Clinical syndrome, Axis II- Mental retardation, Pervasive developmental disorders, Specific developmental disorders, and Axis III-Physical disorders/illness, Axis VI- Severity of current psychosocial stressors and Axis V- Highest level of adaptive functioning in past year. Rather than ICD-10 described, Clinical syndrome, Axis II-Disorders of psychological development, Axis III-Mental retardation, Axis IV-Medical illness, Axis V- Abnormal psychosocial conditions, and Axis VI-Psychosocial disability.

DSM-IV-TR described clinical Syndromes, in Axis I -Disruptive behaviour disorders: Attention deficit hyperactivity disorder (ADHD), Conduct disorder and Oppositional defiant disorder; Anxiety disorders of childhood or adolescence: Separation anxiety disorder, Avoidant disorder of childhood and adolescence and Over anxious disorder; Eating disorders: Anorexia nervosa, Bulimia nervosa, Pica and Rumination disorder of infancy; Gender disorders; Tic disorders; Elimination disorders: Functional encopresis and Functional enuresis and Miscellaneous disorders and in Axis II-

Pervasive developmental disorders. On the other hand, ICD-10 described Axis I- Conduct disorders, Emotional disorders, Mixed disorders of conduct and emotions, Hyperkinetic disorders, Disorders of social functioning, Tic disorders, Pervasive developmental disorders and Other behavioural and emotional disorders.

2. Elimination Problem

2.1 Definition of Elimination Problem

In elimination Disorder, children are typically referred for treatment with toileting or elimination problems if they fail to achieve bladder and bowel control by the age of 5 or 4 years. (Carr,1999). The development of bladder and bowel control occurs in most children during the first five years of life (Buchanan, 1992; Shaffer, 1994). Children with elimination disorder have a negative impact on their social and educational development. Children with these problems may be excluded from school and ostracised by their peers, and they may develop conflict relationships with their parents. This in turn can lead to the development of academic attainment problems, low self-esteem, and secondary emotional or conduct problems.

2.2 Types of Elimination Problem

Generally this disorder is found in two groups. These are enuresis and encopresis. Elimination problems constitute a heterogeneous group of disorders and any classification system must take account of a number of important distinctions. According to DSM-IV (APA, 1994) and ICD-10 (WHO, 1996) many of these features have been taken into account in describing elimination disorders, but few have been taken into account in sub classification. In ICD-10 (WHO, 1996), a distinction is made between enuresis and encopresis, but no attempt is made further to sub classify elimination problems with different features. In DSM-IV (APA, 1994) encopresis is sub-classified into a type characterised by constipation and overflow of incontinence and a type where this feature is absent. With enuresis, three subtypes are recognised, depending upon the time of day when wetting typically occurs: diurnal, nocturnal and both.

3. Enuresis

3.1 Terms of Enuresis:

The term “Enuresis” is derived from the Greek "enourein", meaning to void urine and Latin origin that means literally ‘to make water’. The term “enuresis” is described as involuntary urination (Taber's cyclopedic medical dictionary, 1977). In Twenties century this term is widely conceptualised as ‘Biobehavioral Problem’ (Mellon & McGrath, 2000). Enuresis refers to the persistence of inappropriate voiding of urine beyond the age of anticipated bladder control (age 4 to 5 years at the latest) (Michael & Darby, 2001). It is important to comprehend the usual development of continence in a child. During the first stages of development of bladder control, the infant voids through a reflex mechanism. Between the ages of 1 and 2 years, there is a gradual enlargement of the bladder capacity and neural maturation of the frontal and parietal lobes occurs (McLorie & Husmann, 1987). This is the time that conscious sensation of bladder fullness develops. During the 2nd and 3rd years of life, the child is able to void or inhibit voiding voluntarily. By the ages of 4 and 5 years, maturation of the bladder should be complete, allowing the child to have an adult pattern of urinary control. The characteristics sequence for developing bladder and bowel control is as follows:

- (a) Nocturnal bowel control,
- (b) Daytime bowel control,
- (c) Daytime control of voiding, and
- (d) Nocturnal control of voiding (Rushton, 1995).

The development of bladder control is a multidimensional process that requires sensory awareness of bladder fullness by the child, capacity for storage of urine, voluntary control of the bladder sphincter, psychological desire for control and a positive training experience. Most of the text use this term as a synonymous with “nocturnal enuresis” according to the recommendations issued by International Children’s Continence Society (Nørgard, van Gool, & Hjälmås, 1998).

3.2 Definition of Enuresis:

According to DSM-IV-TR (APA, 2000), Enuresis is defined as the repeated voiding of urine into the bed or clothes at least twice per week for at least three consecutive months in a child who is at least 5 years of age. Enuresis refers to bed-wetting occurring at least several times per month in children at least 5 to 6 years old (Forsythe & Butler, 1991). There is a wide variation in the age at which night time urinary continence is achieved, thus normal preschool-age children who wet the bed are not viewed as having enuresis but rather considered to have developmentally appropriate night wetting. Bed-wetting is considered normal up to age 5. When the problem persists, a visit to the doctor is in order. Bed-wetting rarely signals a health problem but daytime wetting which often occurs with bed-wetting, yet may be overlooked if it's only, a salivate can represent serious illness.

3.3 History of Enuresis:

The extensive and colourful history of enuresis shows that it has long posed an etiologic and therapeutic problem for physicians. Enuresis has been an identified clinical symptom in western civilization for more than two hundred years and recognition of it as a problem situation in modern civilization. The first record of enuresis in the literature is in the Papyrus Ebers dated 1550 B.C., where the recommended remedy for incontinence was one juniper berry, one leaf of Cyprus and beer. In 1472, the term enuresis was first mentioned by Paul Bagellardus in the first printed book on diseases in children. This was one of only a few medical texts of the time and the mere mention of nocturnal enuresis gave some merit to its problematic nature. Paul Bagellardus states that all treatments for urinary incontinence and bedwetting must be preceded by purging of the body, a probable remedy for relaxation of the vesicle muscles, because it was thought in spite of magic cures that enuresis resulted from weakness of the neck of the bladder (Glicklich, 1951).

The history of the symptom of enuresis as summarized in Glicklich's (1951) review and it was revealed a thread of punitive and desperate interventions that have been applied by frustrated adults for centuries to children who persistently wet the bed. Some of these early treatment modalities include using various mixtures from

animals, organs or plants. For example, some remedies included placing a comb from a hen in tepid water and giving it to the child to drink or putting testicles from a hare into a glass of wine and having the child drink it. Others tried drying the comb of a cock and scattering it over the enuretic's bed.

With the perfection of human anatomy studies, especially in the form of nerve pathology by the eighteenth century, anatomically oriented treatments began to appear as the magic elements disappeared. The study of enuresis in Europe and in England particularly began in the nineteenth century, when upper class schoolboys in boarding schools wet their beds. Social pressure forced the medical community to form a task force to investigate enuresis. Similar research started in the United States almost at the same time, traditionally most studies have been conducted in these countries (Järvelin, 1999). A number of treatments like limitation of fluids, regulation of diet and exercise, application of cold poultices to the perineum and lower spine, electric stimulation of the genital and perfumed region and cause to experience of urethra with silver nitrate was used for enuresis. Various penile bandages were also used for enuresis, until a case of gangrene was reported (Glicklich, 1951).

From the nineteenth to the twentieth centuries, the emphasis on etiologic was the transferred from organic to psychological aspects. Freud's research at the turn of the century led to the theory that enuresis was a neurosis or a symptom of personality disorder. Over the next 30-40 years, this concept was widely accepted (Gerard, 1939), until research dealing with genetic disposition and other organic reasons for enuresis began to appear (Hallgren, 1956). Poulton and Hinden (1953) made one of the landmark findings for current treatment, in addition to the invention of enuresis alarm; in the early 1950s and found that large amounts of nocturnal urine output occur in nightwetters.

The observation was replicated by a Danish research group and led them to discover that nightwetters exhibit low arginine vasopressin levels at night (Rittig, Knudsen, Norgaard, Pedersen, & Djurhuus, 1989). The influence of psychic factors on enuresis and the use of psychological interventions have been highly debated the latter partly due to a fear of symptom substitution. Psychological and other types of treatments

treatments have been systematically researched since the 1960s even though the urine alarm saw its dawn in the nineteenth century. In 1904, it was accidentally discovered that the alarm diminished night wetting and the first treatment series was reported in the 1930s (Mowrer & Mowrer, 1938). Up to now more than 300 papers have been published on the effectiveness of interventions for nocturnal enuresis.

In spite of embarrassing of information found in health care journals, updates on the World Wide Web, advertisements through various media sources and information distributed through physicians' offices, schools and other related programs. The causes of nocturnal enuresis are still not entirely understood and management continues to be subject of controversy.

However, at present when a child can gain success with the help of the various methods of treatment, it promises to be a dream comes true for him/her and the family and the practitioner gains satisfaction as well.

3.4 Diagnostic Criteria of Enuresis:

According to DSM-IV-TR (APA, 2000), the following criteria should be maintained for diagnosis enuresis:

- ❑ Repeated voiding of urine into bed or cloths whether, it is involuntary or intentional.
- ❑ The behaviour is clinically significant as manifested by either a frequency of twice a week for at least three consecutive months or the presence of clinically significant distress or impairment in social, academic (occupational), or other important areas of functioning.
- ❑ The chronological age is at least 5 (on equivalent developmental level).
- ❑ The behaviour is not exclusively to the direct physiological effect of substance (e.g. diuretic), or a general medical condition (e.g. diabetes, spinal bifida, a seizure disorder).
- ❑ Specify types: nocturnal- passage of urine only during night time only, diurnal- passage of urine during waking hours, nocturnal & diurnal- combination of the two subtypes.

According to ICD-10 (WHO, 1996), a disorder characterised by the involuntary voiding of urine by day or by night, which is abnormal in relation to the individual's mental age and which is not a consequence of a lack of bladder control due to any neurological disorder or epileptic attacks or any structural abnormality of the urinary tract. The enuresis may have been present from birth or it may have arisen following a period of acquired bladder control. The later-onset variety usually begins at the age of 5 to 7 years. The enuresis may constitute a monosymptomatic condition or it may be associated with a more widespread emotional or behavioural disorder. Emotional problems may arise as a secondary consequence of the distress or stigma those results from enuresis. The enuresis may form part of some other psychiatric disorder and the emotional or behavioural disturbance may arise in parallel from related aetiological factors. There is no straightforward ways of deciding between these alternatives.

In the present research, DSM-IV-TR (APA, 2000) would be used for diagnosis a child as an enuretic.

3.5 Prevalence Rate of Enuresis:

The prevalence of nocturnal enuresis has now been studied in many populations all over the world. Several epidemiological studies done in several countries reported that enuresis is a problem of the young and is more common in boys than girls. Beside this, these also suggest that there is no apparent cultural influence on the incidence of enuresis in children. According to DSM-IV (APA, 1994), Enuresis is not diagnosed until 5 years of age. The prevalence of enuresis among 5-years-olds is 7% for males and 3% for females. At 10 years of age the prevalence is 3% for males and 2% for females. At the age of 18, 1% of males have enuresis and fewer females suffer from the condition (Barclay & Houts, 1995).

According to The National Enuresis Society, by five years of age, 15% of children continued to have episodes of bedwetting, by ten years of age, only 5% of children still wet their beds, even through adolescence, 1 - 2% of children have occasional bedwetting. Males outnumber females by six to ten times, although 50% of children over the age of ten are bedwetters. (Retrieve on www.peds.umn.edu/centers/nesc).

In USA, National Health Interview Survey conducted on 10,960 children aged 5

through 17 years. Bed-wetting was reported in 33% of 5, 18% of 8, 7% of 11, and 0.7% of 17-years-olds. At all ages, infrequent bed-wetting (fewer than six episodes per year) accounted for half of all reported bed-wetting (Byrd, Weitzman, Lanphear, & Auinger, 1996). Each morning an estimated five to seven million children wake up in a wet bed due to primary nocturnal enuresis or night time bedwetting (Cendron, 1999). In a study showed that 15% to 20% of children wet the bed frequently enough to be considered enuretic (Husain & Cantwell, Walsh & Menvielle; cited in Fletcher, 2000). Enuresis is prevalent in 7% to 20% of males and 3 % of females ranging from ages 5 to 7 years of age. At age 10, the prevalence is 3% in males and 2% in females (American Psychiatric Association; cited in Fletcher, 2000). Typically by the age of 15, most children have outgrown bedwetting.

In Italy, the Italian club of nocturnal enuresis conducts a study to estimate the prevalence of enuresis in 7012 school children aged 6-14 years by using DSM-III & IV definition. The study showed that the overall prevalence was 3.8% and it was decreasing trend with increasing age. They also found that enuresis was more frequent in boys than girls (Chiozza, Bernardinelli, Calone, DelGado, Ferranra, & Glorgi, et al. 1998).

In Denver, Most parents become concerned about its presence after age 5 or 6 years; most children do not become concerned until age 7 or 8 years. At age 5, approximately 20% of children wet the bed at least monthly, with approximately 5% of boys and less than 1% of girls wetting the bed nightly. By age 6, only 10% of children wet the bed. Thereafter, approximately 15% of bed-wetter becomes dry each year. Overall, 60% of bed-wetter and more than 90% of nightly bed-wetter are male (Barton & Schmitt, 1997).

In Finland, a random sample of 3,206 seven-year-old children was studied in order to examine the prevalence of enuresis and associated somatic and genetic risk factors. The overall prevalence of enuresis was 9.8% and the figures for night wetting, day wetting and mixed day and night wetting 6.4%, 1.8% and 1.6% respectively. The prevalence was 9.5% among primary school children, 24.8% among children whose entry to school had been postponed and 26.6% among handicapped and mentally retarded children (Järvelin, Vikeväinen-Tervonen, Moilanen, & Huttunen, 1987).

In Australia, another epidemiological study conducted to establish the prevalence of enuresis in 5-12-year-old of 2292 Australian children. The parents completed a self-administered questionnaire voluntarily. From a response rate of 74%, the overall prevalence of any reported nocturnal enuresis was 18.9% and any day wetting was 5.5%. The prevalence of marked nocturnal enuresis (at least weekly) and marked day wetting was 5.1% and 1.4% respectively (Bower, Moore, Shepherd, & Adams, 1996).

In Jordan, one study was conducted to estimate the prevalence of primary nocturnal enuresis (PNE) in children of Jordan and to examine factors associated with PNE. Researcher administered one questionnaire to 950 parents of children aged 6-8 years, randomly selected from three primary schools in Jordan. The questionnaire was designed to evaluate the prevalence and factors associated with PNE. The response rate was 71.6%. The overall prevalence of PNE was 23.8%. This prevalence declined with age from 48.9% at 6 years to 21.1% at 7 years and 8.4% at 8 years. The findings indicate that the prevalence of PNE in Jordan is higher than that reported from other Asian or European countries, while the associated factors are similar (Hazza & Tarawneh, 1983).

In Taiwan, the overall prevalence of nocturnal enuresis was 6.8% of 8496 children. The ratio of male to female was about 1.5 (8.0% vs. 5.5%). The prevalence of enuresis according to age group declined from 12.5% at 6 years to 2.0% at 12 years. The prevalence of enuresis in the urban area did not show significant difference from that of rural area (6.2% vs. 6.9%). Of the factors associated with enuresis, gender, age, urinary frequency or urgency, heredity, drinking habit before sleep and difficulty in waking showed significant difference after multiple logistic regression analysis. After multivariate analysis, difficulty in waking and time of wetting were the only factors significantly associated with the severity of enuresis. (Hui-Lun Tai, 2002).

In China, A cross-sectional study of PNE was performed by distributing 11799 self-administered questionnaires to parents of 5–18-year-old students in 32 schools of Henan province China. The questionnaire asked about socio-demographic data, Primary nocturnal enuresis data, physical or psychological disorders, and family

stressors. The Primary nocturnal enuresis children were divided into a paediatric group (age 5–12) and an adolescent group (age 13–18). The response rate was 88% (10383/11799) in which 10088 (85.5%) were qualified to enter the final statistical analysis. The overall prevalence of primary nocturnal enuresis was 4.07% (95% CI 3.68–4.46) and that of marked primary nocturnal enuresis was 1.46% (95% CI 1.23–1.69). Primary nocturnal enuresis was significantly more in boys than in girls. The prevalence decreased with age without gender bias. Of all enuretic children, 21.17% had daytime urinary symptoms and 22.87% had a positive family history. Only 6.08% of primary nocturnal enuresis had sought professional help (Wen, Wang, Chen, Wen, & Liu, 2003)

In South India (Kerala), 18.6% of children among 1403 had had an episode of enuresis in the past year and 4.3% in the past week (Hackett, Hackett, Bhakta, & Gowers (2001). Other Studies on the prevalence rate of childhood enuresis indicate that a sizeable proportion of children in the age rang of 5 to 10 wet their beds at least once in a while. Epidemiological surveys on this problem conducted in twenties centuries indicate a prevalence rate of about 4-20% among children in the above age range (Liu, Sun, Uchiyama, Li, & Okawa, 2000; Hackett, et al. 2001) with a spontaneous remission rate of approximately 15% (Gandhi, 1994).

In Bangladesh, one study was conducted to estimate the prevalence of child behavior problems reported by parents in rural Bangladesh. At first the researcher identified 4,003 children, who have aged 2-9 years on the basis of population-based survey of 2,231 households. A predetermined sample of 499 was selected, of which health professionals saw 453 (90.8%) for structured physical and neurological examination, standardized testing of cognition and adaptive behavior and parent report of developmental history and behavior problems. The prevalence of behavior impairments was 14.6%. The majority involved somatic complaints, including nocturnal enuresis and pica. Problems such as aggression or restlessness were infrequently reported. Behavior impairments were significantly associated with malnutrition (prevalence ratio 2.1, 95% CI 1.2, 3.6, $p < 0.01$) and cognitive, motor or seizure disabilities (Khan, Ferdous, Islam, Sultana, Durkin, & McConachie, 2009)

3.6 Types of Enuresis:

According to DSM-IV (APA, 1994), three types of enuresis are found. These are: nocturnal only, diurnal only, both nocturnal and diurnal.

□ The American Family Physician (Thiedke, 2003) classified enuresis on the basis of time of the day. These are:

a. **Nocturnal enuresis (NE)** also referred to as "bedwetting" or "sleep wetting" is described as the involuntary passing of urine during sleep after the age at which bladder control would normally be anticipated (Johnson, 1998). So, it is usually defined as repeated involuntary passage of urine during sleep in the absence of any identified physical abnormality in children aged above five. This problem occupies considerable time in the general paediatric or family practice and is often accompanied by major psychosocial issues.

b. **Diurnal enuresis (DE)** also referred to as "daytime wetting" is described as the involuntary or intentional voiding of urine into clothing while awoken (Barton et al. 1997). Diurnal enuresis is involuntary leaking of urine during waking hours. Daytime wetting is present in approximately one in ten nocturnal enuretic (Essen & Peckham, 1976).

c. All other kinds of nocturnal enuresis in children such as daytime only or **both day and night** should simply be denoted "urinary incontinence" (UI).

□ According to American Family Physician (Thiedke, 2003), enuresis can also be classified on the basis of episode of dryness. These are:

a. **Primary** is that when the child has never gone for a significant period--at least six months--without wetting the bed (Herbert, 1996). Moreover, it is life long (Barton et al. 1997).

b. **Secondary** is that when the child reverts to bedwetting after a period of being dry (Herbert, 1996). Generally, it is acquired enuresis after being dry for a minimum of 6 months (Barton et al. 1997).

The distinction is important because children with secondary enuresis will more often

have underlying medical or psychological problems: structural abnormalities, or infection of the urinary tract or significant emotional trauma. Over 90% of bedwetters, however, have primary enuresis.

Recent urology literature and American Family Physician (Thiedke, 2003) both describes another classification of nocturnal enuresis based on the presence or absence of other symptoms. These are:

a. **Monosymptomatic nocturnal enuresis (MNE)** is defined as a normal void occurring at night in bed in the absence of any other symptoms referable to the urogenital tract, and it precludes any daytime symptomatology. This type of bed-wetting associated with normal daytime urination.

b. **Polysymptomatic nocturnal enuresis (PNE)** is bed-wetting associated with other bladder symptoms such as urgency, frequency, instability or other signs of an unstable bladder or voiding dysfunction. Children who have polysymptomatic enuresis are far more difficult to treat.

Investigations of clients who have monosymptomatic nocturnal enuresis reveal that they are clearly different from clients who have polysymptomatic nocturnal enuresis. Most children are not concerned until 7 to 8 years of age. Approximately 80% to 85% of children who have nocturnal enuresis have monosymptomatic nocturnal enuresis. Another 5% to 10% of cases meet the definition of polysymptomatic nocturnal enuresis with daytime wetting or other bladder symptoms (Michael et al. 2001).

3.7 Etiology of Enuresis:

While there are numerous theories outlining the specific causes of enuresis especially nocturnal enuresis many etiologic factors are generally recognized and accepted. Conversely, many of these continue to be cause for debate among practitioners. For many children with nocturnal enuresis, there may not be an exclusive explanation and the findings may be multifactor. Etiological theories of enuresis fall into five categories: biological, developmental, psychodynamic, behavioural and family systems.

I. Biological Theories: Biological explanation of enuresis point to the importance of genetic and constitutional factors. Shaffer (1994); Barelay et al. (1995), and Kaplan and Busner (1993), have reviewed the findings concerning both the role of biological factors in the aetiology and biological treatment of enuresis.

a. Genetic Factors: It is well known that there is a greater incidence of nocturnal enuresis in children whose parents were enuretic compared to those families with no parental history. If both parents were bedwetters, their children have a 77% chance of having nocturnal enuresis and if only one parent had been enuretic, the incidence drops to 43% (Bakwin, 1993). Other studies also indicate that if one parent had enuresis, the probability of a child having it is approximately 40% to 45%. If both parents were affected, the probability of a child having the condition increases to 70% to 77%. If neither parent had enuresis, only 15% of offspring will have enuresis (Michael et al. 2001).

A hereditary basis for nocturnal enuresis has been suspected for years. The concordance for enuresis is higher in identical twins 68% compared with fraternal twins 36% (Barton et al. 1997). Similar studies of twins also show a concordance rate of 43% to 68% for monozygotic and 19% to 36% for dizygotic twins (Michael et al. 2001). Enuresis runs in families, 70% of clinically referred enuretics have a first-degree relative who was enuretic as a child (Herbert, 1996). The number of first-degree relatives with bedwetting problems is the single most accurate predictor of a poor prognosis for enuretics (Barelay et al. 1995). Enuresis was more frequent in first-born child (Singh, Kaur, & Kataria, 1991).

One possible explanation may be a genetic predisposition for insufficient productions of Antidiuretic Hormone (ADH). Results of a study announced by a Danish investigator, Dr. Norgaard demonstrated that 80-85% of his bedwetting cases in the past nine years were due to insufficient production of antidiuretic hormones (ADH). ADH production, which ordinarily increases during sleep, apparently remains unchanged during both day and night in bedwetters (Norgaard, Hansen, Nielsen, Rittig, & Djurhuus, 1989a; Norgaard, Hansen, Wildschlotz, Sorenson, Rittig, & Djurhuus, 1989b). Levels of vasopressin the antidiuretic hormone normally increase during the night, causing the body to produce a smaller total volume of more

during the night, causing the body to produce a smaller total volume of more concentrated urine during sleep. The frequency of a nocturnal ADH deficit as a cause of primary enuresis is unknown. Some studies have shown normal night times urine volumes in those who have enuresis. The response to desmopressin does not prove this theory because the drug reduces urine production in children who have normal ADH levels (Kaplan et al. 1993).

Some other research describes a molecular genetic heterogeneity to primary nocturnal enuresis. This genetic link is consistent with the chromosomes 13q and 12q (Arnell, Hjalmas, & Jagervall, Lackgren, & Stenberg, Bengtsson, et al. 1997; Eiberg, 1995). Identification and gene characterization for polysymptomatic nocturnal enuresis could lead to a better understanding of the complexity of urination and nocturnal enuresis and subsequent management and treatment (Eiberg, Berendt, & Mohr, 1995). Another studies found that chromosomes 8q, 12q, 13q, and 22q11 all have been named as possible locations of a genes resulting in enuresis, but a specific mechanism for enuresis related to a gene locus is not known (Michael et al. 2001 & Eiberg, 1998).

b. Small Bladder Capacity: Children who wet the bed frequently also have small bladder capacities. The bladder is too small if it is unable to hold all the urine produced during the night. Clues to a small capacity are daytime frequency, wetness every night, occasional wetness several times per night, and the presence of the problem since birth (primary enuresis). Pennesi, Pitter, Bordugo and Minisini, Peratoner (2005) found in their study that out of 226 children, 90% has presented with 1 or more symptoms of bladder maturation delay. Bed-wetting occurs when functional bladder capacity is reached (Norgaard, Rittig, & Sjurhuus, 1989). Maizels, Gandhi, Keating, and Rosenbaum (1993) found that 85% of children who experienced enuresis had a decreased functional bladder capacity. Urodynamic studies indicate that children with nocturnal enuresis exhibit frequent uninhibited bladder contractions and a lower functional bladder capacity than their nonenuretic counterparts (Persson-Junemann, Seemann, Kohrmann, Junemann, & Alken, 1993). Conversely, another study revealed that bladder instability was found in only 15% of clients with isolated nocturnal enuresis, when compared to 97% having both diurnal and nocturnal enuresis (Whitside & Arnold, 1975). Rushton (1995), noted that upon

nocturnal enuresis (Firlit, Smey, & King, 1978; McGuire & Savashino, 1984; Webster, Koefoot, & Sihelnik, 1984), it appears that many have included clients with noticeable daytime voiding abnormalities (including urgency, frequency, and diurnal enuresis) or with other neurological or urologic abnormalities including urinary tract infection. Norgaard and colleagues published findings that sleep cystometries failed to equate nocturnal enuresis with unstable bladder contractions or a reduction in bladder capacity (Norgaard et al. 1989a & 1989b). Although the topic of decreased bladder capacity in children with polysymptomatic nocturnal enuresis continues to be controversial, it does appear that those children with monosymptomatic nocturnal enuresis rarely exhibit abnormal urodynamic findings and usually have a normal bladder capacity. This group may either produce large volumes of urine at night, thereby reaching functional bladder capacity despite normal bladder function or may be unresponsive during sleep or both (Jarvelin, Vikevainen-Tervonen, Moilanen, & Huttenen, 1988).

c. Sleep Disorders: Child with primary nocturnal enuresis as being a "deep sleeper" and are confident that the inability to awaken to a full bladder is the cause of the bed-wetting. These types of children are characterized as difficult to awaken and unable to hear an alarm clock or any loud noises during their sleep. Wille (1994) discussed an alteration in arousal from sleep in response to the sensation of a full bladder. Broughton (1968) also proposed the same theory. He explained further that enuretics sleep normally but suffer from an arousal disorder. Forty years ago, it was thought that bed-wetting occurred during the deep sleep stages or when transitioning from one sleep stage to another (Mikkelsen & Rapoport, 1980). This presumption was studied based on the theory that the enuretic demonstrates a lack of inhibitory cerebral control of reflex voiding during deep sleep. Mikkelsen et al. (1980) explained that enuresis was independent of sleep stages and occurred randomly throughout the night proportional to the time spent in each sleep stage. Norgaard, et al. (1989b) studied a group using cystometric testing during sleep. They found that nocturnal enuresis occurred when the bladder was filled to capacity and it emptied with a fully coordinated voiding pattern. If the child awoke or was aroused due to a full bladder, there was an increase in pelvic floor activity (as measured by EMG using surface electrodes). However, when enuresis occurred with the sleeping child, the pelvic floor was almost electrically silent. Based on this information, they imply that enuresis

was almost electrically silent. Based on this information, they imply that enuresis treatment should be directed towards limiting urine output at night rather than sleep modulation.

d. Sleep Apnea: Obstructive sleep apnea syndrome (OSAS) is a prevalent and potentially serious problem. Occasionally, nocturnal enuresis is an associated issue. Several case studies have reported the cessation of nocturnal enuresis with the surgical removal of the obstructing lesion (Aden tonsillectomy) or treatment with continuous positive airway pressure (Brown, Jacobs, & Pelayo, 1995; Everaert, Pevernagie, & Oosterlinck, 1995; Wengraf, 1997) in both children and adults. Surgeons have sometimes experienced that nocturnal enuresis resolves after the child had large adenoids or tonsils removed. Another study reports significant decrease or complete cure of nocturnal enuresis in 87 (76%) of 115 enuretic children (of whom 103 with primary nocturnal enuresis) after surgical removal of upper airway obstruction (Weider, Sateia, & West, 1991). Children who experience nocturnal enuresis associated with sleep apnea historically snore heavily due to enlarged tonsils and adenoids. Explanations for enuresis in these situations are related to alteration in hormonal activity and renal pathology. Follenius, Krieger, Krauth, and Forza, Brandenberger (1991) reported that urine volume and sodium excretion are increased at night in clients with OSAS. Baruzzi, Riva, and Cirignotta, Zucconi, Capelli, and Lugaresi, (1991) found that sleep apnea caused nocturnal polyuria and an increase in the atrial natriuretic peptide secretion in the blood. In the adult population, secondary enuresis is an uncommon finding.

e. Polyuria: Excessive urine production (polyuria) may fill the bladder one or more times during the night, requiring the child to arouse from sleep and use the bathroom. Normal children have a marked circadian variation in urine output leading to a significant reduction of urine excretion and a corresponding increase of urine osmolarity during sleep (Rittig, Matthiesen, Hunsballe, 1995). Decrease of renal urine production during the night allows for sleep not disturbed by a full bladder. The circadian variation is present in normal subjects regardless of age and has been attributed to nocturnal increase of antidiuretic hormone (plasma vasopressin) (George, Messarli, & Genest, 1975) that is, however, true only in childhood. In adolescence and adult age, the reduction of nocturnal urine production occurs mainly

due to a decrease in urinary sodium excretion (Rittig, et al. 1995; Rittig, Matthiesen, & Pedersen, 1999). Relative nocturnal polyuria has been operationally defined as a day/night urine ratio of < 1 which has been shown to exist in around two thirds of children with primary monosymptomatic nocturnal enuresis. A Danish research group in Aarhus looked at nocturnal urine production and plasma vasopressin in children with nocturnal enuresis and found a virtual absence of day/night variation of vasopressin accompanied by nocturnal polyuria (Norgaard, Pedersen, & Djurhuus, 1985; Rittig, Knudsen, & Norgaard, 1989). Thus, for the first time, a coherent physiological explanation for nocturnal enuresis, or at least a large part of the nocturnal enuresis population, had been presented. The new findings generated quite intense research resulting in, as expected, both validating (Aikawa, Kasahara, & Uchiyama, 1999) and conflicting (Läckgren, Neveus, & Stenberg, 1997) data. This conflict has been subsequently resolved by the mentioned finding that lack of nocturnal increase in vasopressin ceases to be operative for the nocturnal polyuria in enuretics at the beginning of adolescence (when it seems to be due to nocturnal natriuresis). Presently, there is a consensus that relative nocturnal polyuria is an important pathogenetic factor in around two thirds of monosymptomatic nocturnal enuresis clients regardless of age, while the remaining third has inadequate nocturnal bladder storage.

f. Urinary Tract Infection: Enuresis has also been found to be associated with urinary tract abnormalities, urinary tract infections such as urgency, frequency, burning pain on urination, or fever etc (Kaplan, et al. 1993). This is far more common in females than in males. Typically, daytime symptoms such as dribbling, incontinence, or frequent urges to pass small amounts of urine may signal a bladder infection (<http://www.peds.umn.edu/centers/nes>).

g. Constipation: Constipation may cause secondary nocturnal enuresis or make primary nocturnal enuresis persist (Eller, Homsy & Austin, 1997; Loening-Baucke, 1997). Pennesi, et al. (2005) found in their study that out of 226 children, 13% reported constipation. A hypothetical explanation is that fecal retention in the sigmoid colon and rectum exerts pressure on the bladder thus reducing the storage capacity. The important implication is that constipation has to be identified and treated in every child with nocturnal enuresis.

h. Diet: A very small percentage (approximately 10%) of children is believed to have a food-related allergy as a key factor in their nocturnal enuresis. Clients who were on food-restrictive diets for managing childhood migraines or hyperactive behavior had cessation in their nocturnal enuresis (Egger, Carter, Soothill, & Wilson, 1992; Esperanca & Gerrard, 1969). Esperanca et al. (1969) have noted that some children benefit from eliminating foods such as: those high in caffeine and sugar, citrus fruits and juices, dairy products (especially after noon), artificially colour foods and drinks and chocolate.

i. Minor Neurological Dysfunction and ADHD: Children with minor neurological dysfunction are more prone to nocturnal enuresis, particularly if belonging to a lower social class (Lunsing, Hadders-Algra, Touwen, 1993). Children with attention deficit hyperactivity disorders (ADHD) are 2.7 times more likely to have enuresis than the general child population (Robson, Jackson & Blackhurst, 1997). In relation to nocturnal enuresis, it is noted that after the age of 10 years, an increase in the percentage of children with polysymptomatic nocturnal enuresis will have symptoms associated with ADIID (Fergusson & Horwood, 1994). Depending on how one interprets the information in respect to a cause and effect explanation may be the source of controversy of this topic. For example, Ornitz, Hanna, and deTraversay (1992) found that among clients with ADHD, 30.2% of the 43 boys studied had persistent polysymptomatic nocturnal enuresis after 6 years of age. In contrast, other reports noted ADHD in only 4% to 8% of clients diagnosed with enuresis (Mikkelsen, Brown, & Minicheillo, Millican, & Rappoport, 1982; Steinhausen & Gobel, 1989). Tietjen and Husmann (1996) assumed that it is difficult if not impossible to determine whether the disruptive behaviour of children with ADHD stems from the embarrassment of enuresis or whether enuresis is one of the several "soft" signs of an underlying neurological disorder. The combination of ADHD and nocturnal enuresis constitutes one of the rare indications for treatment of nocturnal enuresis with tricyclic antidepressants.

II. Developmental Theories: Developmental hypotheses about the aetiology of enuresis view as a part of a delay in reaching normal developmental milestones. Enuresis is more common between both children with specific developmental delays such as a child who is failure to reach motor, speech & social milestones on time and

children with general developmental delays such as a child who has low IQ or who is diagnose as intellectually disable (Shaffer,1994; Buchanan, 1992). Premature birth including low birth-weight children was enuretic more often than children of normal birth-weight (Moilanen, Järvelin, & Vikeväinen-Tervonen, Huttunen, 1987). Enuresis is more likely to develop those children who do not begin toilet training until after 18 months (Carr, 1999). The fact that most children who have enuresis become dry in time with or without intervention supports maturational delay as a factor in monosymptomatic nocturnal enuresis. At age 5 years, 15% of children occasionally wet the bed compared with only 10% at 6 years of age (Michael et al. 2001). Although the most common accepted cause of primary nocturnal enuresis, it is the most difficult to prove. It is postulated that functional immaturity of the central nervous system results in decreased sensory perception of bladder filling, inability to inhibit bladder emptying and poor arousal mechanisms. The proponents of this theory cite the spontaneous cure with increasing age as evidence in support of their postulate (Gera, Seth & Mathew, 2001). Perhaps development of central nervous system recognition of and response to the sensation of a full bladder is delayed, a concept that correlates strongly with the arousal dysfunction theory. Proposed abnormal urodynamic factors also may normalize as the child becomes older. A similar process of maturation over time is seen in other milestones of normal development, such as the age range of 9 to 15 months at which a child begins to walk. Maturation delay may be the most plausible and unifying concept among proposed etiologic factors in monosymptomatic nocturnal enuresis.

III. Psychodynamic Theories: In psychodynamic theories wetting is explained as expressions of unconscious intrapsychic conflicts that have their root in non-optimal parent-child relationships during the anal period of psychosexual development. Specifically, the parent may have been overly careless and negligent or overly coercive and controlling during the stage of development when toilet training is a central concern (Anthony, 1957). Negligence on the parents' part, according to this theory, may lead to suppressed aggression, which finds expression in enuresis. The dynamic formulation postulated a desire for intimacy, following failed mother-infant bonding due to maternal depression, which was obtained through enuretic symptoms and interpersonal conflict. This hunt for intimacy through replication of early pleasurable somatic sensations and the utilization of conflict for attention-seeking

may rapidly develop into a repetitive cycle involving delinquency, crime and sexual perversions later in life (Stein, 2006).

Individual psychotherapy, play therapy or art therapy, which aims to permit the child to express and resolve the conflicted feelings that underpin the enuresis, is the principal treatment to have arisen from the psychodynamic tradition. Kaplan, et al. (1993) show that it is rarely effective in helping youngster develop bladder control but it is useful to increase their self-esteem and self-efficacy belief that is decrease due to the negative response of family, peers and others to enuresis.

IV. Behavioural Theories: Behavioural theories have emphasis the role of inappropriate reinforcement schedules in the development of primary enuresis (Fielding & Doleys, 1988). With primary enuresis, bladder filling has not become discriminative stimuli for appropriate toileting habits. Most parents feel tolerant towards their enuretic child with the understanding that the child cannot control the problem. However, up to one third of parents are less understanding and intolerant, and they may even punish their child (Butler, Brewin, & Forsythe, 1988). Parental intolerance is strong predictor that any attempts to treat the enuresis will fail. Furthermore, when appropriate toileting behaviours have occurred, they have not been adequately reinforced. Parental attention following wetting may inadvertently reinforce such problems. There is also the possibility that unsuccessful attempts to resolve this problems and the negative physical and psychosocial consequences of enuresis may lead to development of learned helplessness and low self-efficacy beliefs (Sluckin, 1981). So, lack of positive reinforcement for appropriate toileting or the association of toileting with pain or other aversive experiences may lead to developed or maintenance enuresis (Carr, 1999).

The treatments of enuresis, according to these theories mainly focus on sensitising children to bodily sensations that precede urination so that these become effective discriminative stimuli. Where avoidance behaviours have developed, desensitisation to toileting situations should be arranged. Finally, successive approximations to appropriate toileting behaviour should be reinforced so that normal toileting habits are learned. Buchanan (1992) and Kaplan, et al. (1993) show that it is remarkably effective.

V. Family Systems Theories: These theories have focused on the roles of patterns of family interaction in the maintenance of enuresis (White, 1984; Kelly, 1996). When enuresis develops children may become triangulated into stressful patterns of interaction with their parents or care givers. Within such patterns one parent interacts with the child in an overprotective, intrusive manner, while the other adopts a critical and distant position with respect to the child. Parental disagreements about how to manage the enuresis or wetting problems are not openly addressed but are detoured through the child. Under the treatments of enuresis, according to these theories, family must be helped to replace these problem-maintaining behaviour patterns with alternative ways of managing wetting problems that involve greater parental co-operation.

Some researchers believe that familial and environmental stressors can trigger an enuretic episode Shaffer (1994), Buchanan (1992) found that a number of acute and chronic family stresses have been associated with enuresis. Stressful life events such as birth of a sibling, parental separation, disruptions of parental care, placement in institutional care, head injury, physical or sexual abuse and exposure to natural disaster may all precipitated the onset of secondary enuresis. The onset of secondary enuresis may be brought about by an emotional or psychological disturbance, for example, divorce, death in the family, illness, emotional or physical trauma or the birth of a new sibling. Even though there may be instances where a psychological event may cause secondary enuresis, it is usually a matter of a relapse of physiologic enuresis (Schmitt, 1997). Goin (1998) cited a study, which found that “enuretic subjects were more likely to have parents who were divorced or separated than non-enuretic subjects. It is speculated that because many mothers are awarded custody of the children when marriages split-up, perhaps the separation from or absence of the father-figure takes more of a toll on little boys than on little girls, thereby accounting for their higher frequency of wetting behaviours. Couchells, Johnson, and Carter, Walker, (1981) reported that the mothers of enuretic children applied more rule-oriented child-rearing practices when compared to the mothers of the nonenuretic children.

episode. Most of these episodes fall within the category of secondary enuresis, and a psychological cause can then be associated with the child's enuresis.

Sexual abuse must count among factors that may lead to nocturnal enuresis (most often secondary and non-monosymptomatic). A strong suspicion would prompt full investigation (Friman, Handwerk, & Swearer, 1998). Enuresis is more common among the child who's exposed to chronic stresses associated with a chaotic family environment, such as marital discord, financial difficulties, crowding and parental adjustment problems just like criminality, chronic illness and psychological problems. Enuresis was associated with parents' education, poor academic achievement and lax parental attitudes to toilet training (Hackett, et al. 2001). These findings also suggest that a chaotic family environment may predispose youngsters to have wetting problems, probably because the routines required for developing bladder-control skills are not provided. These results also suggested that exposure to an acute family stress may disrupt well-established toileting habits.

3.8 Impact of Enuresis:

A review of medical literature shows doctors consistently stressing that a bedwetting child is not at fault for the situation. Many medical studies state that the psychological impacts of bedwetting are more important than the physical considerations. "It is often the child's and family member's reaction to bedwetting that determines whether it is a problem or not" (Evans, & Radunovich, 2008).

a. Impact on self-esteem: Whether bedwetting causes low self-esteem remains a subject of debate, but several studies have found that self-esteem improved with management of the condition (Berry, 2008). Children questioned in one study ranked bedwetting as the third most stressful life event, after parental divorce and parental fighting. Adolescents in the same study ranked bedwetting as tied for second with parental fighting (Berry, 2008).

Psychologists report that the amount of psychological harm depends on whether the bedwetting harms self-esteem or development of social skills. The key factors are:

- (i) How much the bedwetting limits social activities like sleepover and campouts
- (ii) The degree of the social ostracism by peers

- (i) How much the bedwetting limits social activities like sleepover and campouts
- (ii) The degree of the social ostracism by peers
- (iii) Anger, punishment, and rejection by caregivers
- (iv) The number of failed treatment attempts
- (v) How long the child has been wetting?

Bedwetting children face problems ranging from being teased by siblings, being punished by parents, and being afraid that friends will find out.

Another study found that nocturnal enuresis is perceived as a shameful condition, giving a significant impairment of self-esteem at an age when an intact self-image is extremely important for an optimal development of the child's personality (Hjalmas, 1997).

In Sweden, Hägglöf, Andrén, and Bergström, Marklund, and Wendelius (1998) were conducted a study on self-esteem, where they taken before and after medical treatment was performed in children with primary nocturnal enuresis (NE) and urinary incontinence (UI). The children with these problems and the controls were recruited from the normal population in the town of Sweden. In total, 66 children were suffering theses problems and 64 controls entered the study. To assess self-esteem we used the Swedish self-esteem questionnaire 'I think I am'. Compared to controls, the NE and UI children had significant impairment of self-esteem before the start of treatment. Within the NE and UI group, boys had lower self-esteem than girls. After 6 months of treatment, the NE and UI children had the same levels of self-esteem as the control group. The NEUI children that had become totally dry had significantly better self-esteem at 6-month follow-up as compared to the NE and UI children with persisting NE and UI problems. In conclusion, the study shows that NE and UI children have low self-esteem and that their self-esteem may be normalized with proper treatment.

Similar findings were found that amongst children with nocturnal enuresis, the most vulnerable in terms of self-image are male, those with primary enuresis and those with a greater number of wet nights a week (Collier, Butler, Redsell & Evans, 2002). Liu et al. (2000) found that emotional problems were more common in enuretic children.

b. Behavioral impact: Studies show that bedwetting children are more likely to have behavioral problems. For children who have developmental problems, the behavioral problems and the bedwetting are frequently part of caused by the developmental issues. For bedwetting children without other developmental issues, these behavioral issues can result from self-esteem issues and stress caused by the wetting (www.psychologytoday.com.). Hackett et al. (2001), in their study on Indian children, found that parental rating of behavioural disturbance among enuretic children was higher in comparison to that of non-enuretic children. They also found enuresis was significantly associated with increased risk of behavioral and academic problems (Liu et al. 2000).

As mentioned previously, current studies show that it is very rare for a child to intentionally wet the bed as a method of acting out.

c. Impact on families: Parents and family members are frequently stressed by a child's bedwetting. It also has major social and economic implications for the family, with an increasing intolerance, as the child grows older (Schulpen, 1997). Some time persistent bedwetting may lead to; parents feeling of anxious, guilty and eventually experiencing loss of confidence in their parenting skills; difficulties in the relationship between parents and child (Blackwell, 1989).

Soiled linens and clothing cause additional laundry. Wetting episodes can cause lost sleep if the child wakes and/or cries, waking the parents. A European study estimated that a family with a child who wets nightly will pay about \$1,000 a year for additional laundry, extra sheets, disposable absorbent garments such as diapers, and mattress replacement (Berry, 2008). Miller, Court, Walton, and Knox (1960) have described enuresis as a condition that is not only a disturbance of development in an individual child, but also a reflection of family relationships and attitudes. They asserted that enuresis was more highly correlated with insecurity and irritability in the family than with standards of physical care. Completing the vicious circle, the incontinence and its secondary development may in turn be maintained by the pathogenic family environment (Mellon, et al. 2000).

4. Management

4.1 Definition of Management:

According to Collaborative International Dictionary of English, ‘**management**’ or ‘**treatment**’ or ‘**intervention**’ refers to service care provided to improve a clinical situation which is especially involve medical procedures or applications that are intended to relieve illness or disorder (Webster, 2009). According to Cambridge Advanced Learner's Dictionary, ‘**treatment**’ or ‘**management**’ can be define as to use drugs, exercises, psychotherapy etc. to cure a person of a disease or disorder (<http://www.dictionary.cambridge.org>).

4.2 Management of Enuresis:

According to Drutz, Naiwen, and Teresa, Leah, Mary, (2006) before medication is considered, behavior therapy and enuresis alarms should be used for three to six months. Although the cause of enuresis is not always known, so the management of enuresis relies on a thorough assessment of the individual child. Generally, when the child has no medical or emotional problems, which is the case approximately 90% of the time, there is a very good chance that he/she will eventually outgrow the problem, even without management. But the bed-wetting child is older than six or seven; the physician may suggest a few treatment options since bed-wetting may cause embarrassment. In those cases, pharmacological, psychological/behavioural and a variety of alternative interventions are commonly used for children who wet the bed. The approach to management of primary enuresis often includes motivational therapy, bladder training, fluid management, behavioural alarms, and occasionally, medications.

So, Traditional management of enuresis includes Pharmacotherapy and Psychological intervention or management. There is not a “best” treatment for bed-wetting (Sanborn, 2002). Treatment should be designed around the needs of the child and the resources of the family.

a. Pharmacological Management: It remains, by far, the most ‘prescribed’ therapy for enuretic children. Pharmacological management for the treatment of primary

nocturnal enuresis is usually reserved for use in children older than seven years of age. Two approaches to drug therapy can be used. One approach is to increase bladder capacity. The other is to reduce the amount of urine produced by the kidneys. Medications can be expensive, have side effects, and have a higher relapse rate than behavioral therapies. Medication and behavioral therapies can be used together. There are several prescription medications commonly suggested by medical professionals for children who are bed-wetter.

I. Imipramine (Tofranil) a tricyclic antidepressant is typically the drug of choice by physicians. Imipramine was first used in the treatment of primary nocturnal enuresis in the 1960's. Four hypotheses regarding its mechanisms of action have been established. They are "antidepressant effects, changes in sleep and arousal, anticholinergic effects, and stimulation of the antidiuretic hormone production" (Gimpel & Warzak, 1998). The first three hypotheses have received little support in literature. While the last hypothesis is promising, further research is needed. Children treated with imipramine often continue the medication for three to six months; however, an optimal length of treatment has not yet been established. Relapse rate following discontinuation of this drug range from 60% to 95 % (Sanborn, 2002). Recent review of the drug found that the longer a client was on imipramine, the less likely he/she was to become dry, thus suggesting that prolonged use of the drug may not necessarily increase the therapeutic benefit or produce lasting results. Imipramine also has been found to have the greatest risk for adverse reactions. Although low doses of imipramine have relatively few serious side effects, adverse reactions have been documented. Most common of these adverse reactions are irritability, reduced appetite, dry mouth, headaches, and increased heart rate. Large overdoses of this drug can be fatal. It is vital that parents supervise the administration of any medications so that accidental overdose does not occur (Gimpel et al. 1998).

II. Desmopressin acetate (DDAVP) is another commonly used medication in the treatment of primary nocturnal enuresis. DDAVP acts as a synthetic anti-diuretic hormone. Desmopressin affects the kidneys by tricking them to increase water re-absorption in the collecting ducts, resulting in a lower volume of urine. DDAVP was originally formulated as a nasal spray, but a tablet form has recently been developed. DDAVP is successful in decreasing the number of wet nights that a child experiences,

but dryness may not be maintained upon discontinuation of treatment. The percentage of relapse following termination is 50% to 95% (Gimpel et al. 1998).DDAVP usage is recommended on a temporary basis when children wish to stay dry during overnight outings. In general, the side effects for DDAVP are mild, with nasal discomfort, headaches, and abdominal pain among the most common. DDAVP should be administered 30 to 60 minutes prior to bedtime, and fluid intake should be restricted on the evenings it is taken (Gimpel et.al. 1998). Seizures have been reported with the use of DDAVP, but it appeared that the clients in which this occurred had consumed excessive fluid, relative to the manufacture's instructions, which resulted in water intoxication and low serum sodium levels (Gimpel et al. 1998). Because of the high rate of relapse and low success rates with most drug therapies, physicians may suggest behavioral therapy or combination therapy (Sanborn, 2002).

b. Psychological Management: According to Dictionary of Psychology (Reber & Reber, 2001), the term '**psychological management**' is generally used to carrying out of functions of planning, organizing & directing any enterprise. In another sense, this term is used for describing any types of procedure or technique that is designed to interrupt, interfere with and modify an ongoing process. Generally it is used in psychotherapy to disrupt ongoing maladaptive behaviour patterns in order to taking a problem in a manageable position. According to American Heritage Dictionary, '**psychological management**' is a psychological model & principles based strategies that help to reduce the psychological problem of an individual. A standard dictionary defines '**psychological intervention**' or '**psychological management**' as an influencing force or act that occurs in order to modify a given state of mood. In the context of behavioural health, an intervention may be any outside process that has the effect of modifying an individual's behaviour, cognition, or emotional state. For example, a person experiencing stress symptoms may find a variety of interventions effective in bringing relief. Deep breathing, vigorous exercise, talking with a therapist or counsellor, taking an anti-anxiety medication, or a combination of these activities are all interventions designed to modify the symptoms and potentially the causes of stress-related discomfort.

So, psychological management can be defining as any psychological intervention that can bring a desired positive change in individual life. The aim of psychological management is to insure good mental health through decreasing problematic behaviour.

4.3: Common Psychological Management for Enuresis:

A variety of alternative psychological interventions are commonly used for people whom suffering enuresis.

a. Psychotherapy: Psychotherapy can be an effective treatment for children's wetting problems if their wetting appears to be a reaction to family changes (e.g., birth of a new baby), stressful situations (e.g., school problems), or an emotional or traumatic event (e.g., divorce). Psychotherapy would help the child and family explore what is causing the wetting problem, and teach the child ways to cope with the situation. Mental health professionals often use psychotherapy in combination with other behavioural strategies such as moisture alarms or scheduled waking. On that reason, psychotherapists consider enuresis to be a symptom rather than a condition in itself. So, the emphasis of treatment is on the "child's inner emotional disturbance" (Mishne, 1993). Consequently, the intervention is aimed at underlying psychological causative factors and attempts to modify the environment that produced the symptom (Mishne, 1993). Psychotherapy may be used in the management of children who have psychological problems in addition to enuresis, to address problems directly related to psychopathology (Warzak, 1993).

b. Counselling: Sometimes individual or family counselling is the most appropriate and beneficial treatment for the child suffering from primary nocturnal enuresis, particularly when stress or anxiety appears to be the primary cause. From the counsellor's perspective, bed-wetting is viewed as a symptom to an underlying problem. Counselling may not only help with the cessation of bed-wetting, but effective sessions can also play a role in improving or repairing family relationships.

c. Motivational Therapy: It involves reassuring the parent and the child, removing the guilt associated with bed-wetting, and providing emotional support to the child. Emphasis should be placed on the child to take responsibility for his or her bed-

wetting by explaining to him/her the condition, reinforcing the fact that he/she did not cause the problem, and teaching him/her that he/she needs to take ownership in the treatment plan. One way to carry out motivational therapy is through positive reinforcement. The success rate for children receiving motivational therapy has been estimated at 25% to 80%, with a relapse rate of approximately 5% (Cendron, 1999; Goin, 1998). "Motivational therapy appears to be a reasonable first line approach to treating children with primary nocturnal enuresis, especially younger children" (Cendron, 1999.).

d. Behavioural Therapy: There are several behavioural therapies used to eliminate nocturnal enuresis, many of which incorporate classical and/or operant conditioning, and positive and/or negative reinforcement. Although behavioural interventions assume that the ability to remain dry at night is a learned response, which can be achieved using psychological conditioning techniques if dryness has not arisen spontaneously. The current review is restricted to simple behavioural interventions such as fluid restriction, lifting, wakening and reward systems (e.g. star charts). Retention control training (bladder training) is included in this review if it is used as a single intervention (Glazener & Evans, 2008). Other interventions will be included only if they are compared with simple interventions or used in combination with them.

I. Psychoeducation: It can help to wash out the myths and misconceptions about psychological disorder such as enuresis in family and society. Generally, psychoeducation means the education of a person in subject areas that serves the goals of treatment and rehabilitation (Psycho-Educational Counseling Services Inc., 2002). According to Carr (2004), Psychoeducation as making the psychological difficulties of clients understandable to family members by providing a coherent theoretical framework; giving them a coherent action plan to follow by training them in problem solving, communication and medication management skills; and providing social support by arranging for families who face similar problems to meet and discuss common concerns. Thus, psychoeducation is a treatment usually combining elements of education about a problem or means of coping with it with cognitive behavioral strategies change (Bennett, 2003). So, the central feature of psychoeducation is that the parents and those child who wet bed must be help to view

what types of problem they suffer, what types of factors that contributing enuresis, how the clients and their parents or caregiver can manage that problem and what the prognosis of the client etc .It also enables the parents to put the situation into perspective and to begin to modify their own lives as necessary. That's why the parents may learn the skills that change their lifestyle, enhance their therapy and help them to live more productive and fulfilled life. So, it reduces distress, confusion and anxiety of the parents as well as the family, which may in turn, help the client to recover.

II. Enuresis alarm: This alarm is a popular option of behavioural treatment. Various alarm devices are available, ranging in price, application and construction. There are now many variations: the alarm may be a bell, buzzer and visual signal such as a light or may vibrate. There are also many different tones and intensities. In 'mini-alarm' systems, the sensor is placed in pants and producing a detached portable system.

The enuresis alarm is a urine sensitive pad that can be put on the bed either under the child or inside the child's pajama bottoms. The pad is wired to an alarm which will either sound or vibrate as soon as the pad becomes wet. As the child reacts to the alarm or vibrations, the muscles at the base of the bladder contract which stops urination. The child should then be fully awakened and encouraged to continue elimination in the bathroom (Staff, 1995). So, it consists of some kind of alarm that is activated by inappropriate micturition (Glazener, Evans, & Peto, 2004d). The first enuresis alarms were bed-based, the child sleeping on a pad or mat containing an electrical circuit. Urine coming into contact with this would complete the circuit causing a bell to ring. The alarm is intended to change the meaning of the sensation of having a full bladder from a signal to urinate to a signal to inhibit urination and waken (Forsythe, & Butler, 1989).

The enuresis alarm is a successful behavior therapy method with a success rate ranging from 70% to 90% (Doleys, Lovibond, Lovibond & Coote, Sacks & DeLoen, Turner, Yates, as cited in Walker, Kenning, Faust- Campanile, 1989). The main disadvantage of the alarm is that it takes a great deal of client effort and motivation. Children, for whom the alarm is effective, generally become dry within two to four months of correct use of the enuresis alarm (Staff, 1995).

III. Alarm clocks: It may use to treat enuresis. In some cases it can be set to awaken a child every two to three hours, whether or not the child is wet or needs to void. The waking time can be adjusted by determining the time that a child is most likely to have a wetting episode and setting the alarm before this time.

IV. Fluid restriction: It means limiting the amount of fluids at night (especially ones with caffeine) may help prevent bedwetting. Generally (deprivation) before bedtime is a method frequently used by parents (Shaffer, 1977). But some experts fear that limiting fluids too much can be harmful to children's health. However, fluid restriction may aggravate a low functional bladder capacity (Sorotzkin, 1984). Even so, it might be useful to restrict drinks with diuretic properties before retiring (Novello, & Novello, 1987).

V. Self-awakening: The aim of these therapies to teach a child how to recognize when their bladder is full during the daytime in the hopes that they can recognize this feeling during the night. It is best tried in children over the age of six years (Schmitt, 1997). Practice should include a self-awakening routine before bedtime every night. This is accomplished by having the child lie on the bed pretend it is the middle of the night, and feel that the bladder is full. The child is asked to imagine that their bladder is saying, "wake up before it's too late". The child then goes to the bathroom to urinate.

Efforts should be made to practice self-awakening during the daytime. When the child senses the urge to urinate during the daytime, they should be told to go to their bedroom and lie on the bed and pretend they are sleeping. They should be told to lie still while thinking about their bladder being full and needing to get up. After a brief period of time, they should get up and go to the bathroom to empty. If self-awakening does not work awaken the child at least once during the night. Use the smallest amount of prompting possible; progress from turning on a light, saying the child's name, touching the shoulder or face, gently shaking, or using an alarm. Once awake, the child should get to the bathroom without assistance.

VI. Scheduled waking: This scheduled involves waking the child to allow them to get up and urinate (Warzak, & Friman, 1994). A scheduled waking programme may be used with the child being woken progressively earlier after dry nights until the

interval between going to bed and scheduled waking is one hour. Older individuals may use an alarm clock to wake themselves (Blackwell, 1989). So, this treatment component involves waking the child prior to accidents and guiding them to the bathroom for urination. Results obtained are attributed to a change in arousal, increased access to the reinforcing properties of dry nights, and increased awareness of urinary urge in lighter stages of sleep. Several schedules are possible, a minimally effortful example of which involves waking the child just before the parents go to bed and systematically waking them one-half hour earlier on nights following several successive dry nights, until the child awakens to urinate without assistance (Friman, 1986; 1995; Friman & Jones, 1998; Houts & Liebert, 1985).

VII. Star charts and other reward systems: It is a kind of behavioural interventions, where positive reinforcement is used to encourage a desired behaviour. This strategy is simply based on promoting desirable behaviour through a reward system. This reward system should serve as a positive reinforcement to the child for achieving dry nights. The rewards can be anything from stickers to money to candy. If the child desires the reinforcer, it will be reinforcing. The use of sticker charts is an excellent tool when using motivation therapy as a treatment measure. The child can record and observe successes, and rewards can be connected to the desired behaviours. Several procedures may enhance the effectiveness of treatment. Rewards for complying with procedures and for self-monitoring wet and dry nights should be included in the treatment of young children. Incentives for compliance may be more desirable than providing a reward for dry nights, because early successes may be too infrequent for a child to receive positive feedback. Parental support and negative client perceptions of bed-wetting favour positive outcomes.

So, in this techniques, the child is rewarded for attaining an achievable goal, such as remaining dry all night or if this is too ambitious, an intermediate goal such as getting up to go to the toilet. These schemes should be negotiated with the child and family. The aim is to positively reinforce dry nights and to reduce the negative emphasis on wet beds. These are often the first type of treatments proposed (Stewart, 1975). However, unless used with care, a child may feel a failure if the reward is not attained (Blackwell, 1989).

VIII. Cleanliness training: It can be function to increase possibility that involve children to take responsibility for managing the consequences of wetting their beds and pants. In addition, children should participate in cleanup of bed linens and soiled laundry whenever possible. This should not be viewed as punitive, but as a consequence of the problem. This involvement may be viewed as undesirable by the child and, in turn, become a motivating factor in staying dry (Cendron, 1999).

IX. Retention control training: It is a kind of bladder training that aims to increase the functional bladder capacity using exercises such as delaying urination for extended periods of time during the day or drinking extra fluids (Warzak & Friman, 1994). Stream interruption exercises (pelvic floor muscle training, sphincter control exercises) may also be recommended (Novello et al. 1987). Retention control training expands functional bladder capacity by increasing a child's capacity to forestall and thus increase the volume of their urinations. Training requires that children drink extra fluids (e.g., 16 oz of water or juice), notify parents of the urge to urinate and delay urination as long as possible. Parents should establish a regular time for retention control training each day and conclude the training at least a few hours before bedtime. Progress can be assessed by monitoring the amount of time the child is able to delay urination and the volume of urine they are able to produce in a single urination (Friman, 1986, 1995; Friman & Jones, 1998). Either or both can be incorporated into a game context wherein children earn rewards for progress.

X. Over-learning: This procedure may be initiated after successful alarm treatment (e.g. achievement of 14 consecutive dry nights). Extra drinks are given at bedtime to cause additional stress to the detrusor muscles in the bladder. Alarm treatment is then continued until 14 consecutive dry nights are again achieved (Blackwell, 1989). An adjunct related to retention control training involves over learning like the retention control training procedure, this method requires that children drink extra fluids--but just prior to bedtime. Over learning is an adjunctive strategy only, and is used to enhance the maintenance of treatment effects established by alarm-based means. Thus, it should not be initiated until a dryness criterion has been reached (e.g., seven dry nights; Houts & Liebert, 1985). Complex behavioural interventions include dry bed training and full spectrum home training (Howe, & Walker, 1992; Glazener, Evans, & Peto, 2004c).

XI. Dry bed training: This training was initially developed in the early 1970s for use with people with learning disabilities (Azrin, 1973). The original schedule involved an intensive training night, during which the person was woken every hour and taken to the toilet. If an accident occurred, 45 minutes of 'cleanliness training' (changing the bed) and 'positive practice' (person practices getting up and going to the toilet about nine times) was implemented. On subsequent nights, the individual was woken once and taken to the toilet, this nightly waking occurring progressively earlier. Variants such as modified dry bed training omit the reprimands and positive practice elements (Butler, Brewin, & Forsythe, 1988).

XII. Full Spectrum Home Training: In 1983, Houts, Liebert, and Padawer were combined this type of training for treating enuresis, which consists of urine alarm training, cleanliness training, retention control training and over-learning procedures.

XIII. Self-monitoring: It provides data that can be used to evaluate progress. One simple method for monitoring nocturnal enuresis basically requires the child to record on a calendar whether the previous night was wet or dry. A more complex and more sensitive method involves placing tracing paper over the stain resulting from an accident and tracing the outline of the stain. Next, the tracing paper is placed over a grid, and the number of squares inside the area is recorded (Friman, 1986, 1995). Beyond progress monitoring, charting these data and setting goals may have the additional therapeutic benefit of reactivity.

e. Creative Therapy: Creative therapy is a different approach to counseling and psychotherapy which refers to a group of techniques that are expressive and creative in nature. The aim of creative therapies is to help clients find a form of expression beyond words or traditional therapy, such as cognitive or psychotherapy. The most commonly used and professionally supported approaches include art therapy, writing, sand play, clay, movement therapy, psychodrama, role play, and music therapy. Creative therapy includes techniques that can be used for self-expression and personal growth when the client is unable to participate in psychotherapy. Problems that can be addressed by using creative therapy with children include; behavioral difficulties - angry, defiant or anti-social children, the withdrawn or socially isolated children, issues of sexual or physical abuse and the bullied and the bullies, children who live in

a 'toxic' atmosphere and attachment difficulties - children who have experienced broken attachments through fostering, adoption or bereavement as well as post-traumatic stress problem. The widely used techniques of creative therapy for enuresis are 'heartstring', 'the pit', 'zero reaches the mountain top'.

All above training procedure was commonly used for treating enuresis.

4.4 Out-come of the Psychological Management of Enuresis:

Star charts with or without lifting or waking were associated with significantly fewer wet nights while on treatment, lower failure rates and fewer children failing or relapsing than controls, but each finding was based on single very small trials (Baker, 1969; Fava, Gracco & Facco 1981; Ronen, Rahav & Wozner, 1992). There was insufficient evidence about retention control training (Bennett, Walkden, Curtis, Burns, Rees, and Gosling, et al. 1985; Harris, & Purohit, 1977), although in the one trial with data, some of the controls were given star charts if they had a dry night while on the waiting list and this may have confounded the comparison (Bennett et al. 1985). Children had more absolute numbers of wet nights per week on the waiting list compared with simple behavioural methods (Baker, 1969; Harris, et al. 1977).

Glazener, Evans, Peto, and Cheuk (2005) were conducted a study on 3257 nocturnal enuretic children comparison interventions included no treatment, simple and complex behavioural methods, desmopressin, tricyclic, and miscellaneous other methods. The result found that alarm intervention is an effective treatment for nocturnal bedwetting in children. Alarms appear more effective than desmopressin or tricyclic because around half the children remain dry after alarm treatment stops. Over learning, dry bed training and avoiding punishment might be reducing the further relapse rate. Better quality research comparing alarms with other treatments is needed, including follow-up to determine relapse rates.

Butler and Gasson, (2005) were conducted a study on children with nocturnal enuresis about treatment for childhood nocturnal enuresis that emphasizes either a psychological or pharmacological approach. The enuresis alarm in comparative studies has emerged as the most effective psychological treatment. In this review, it will be investigate both outcome rates and influential factors from recently published

studies. In this study a search of papers published between 1980 and 2002 in the English language involving at least 10 children in whom the enuresis alarm was employed as a stand-alone intervention revealed 38 studies. The results found that heterogeneity in terms of inclusion and outcome parameters made comparison between studies problematic. The most frequently adopted definitions were “wet at least 3 times a week” in terms of severity at inclusion, “14 consecutive dry nights” as a success criterion and “> 1 wet night a week” as a relapse criterion. Success rates across all studies ranged from 30% to 87% and were influenced by the type of enuresis, the treatment duration and the success criteria adopted. In a homogenous subset of 20 studies, 65% success with alarm treatment was found. Further analysis revealed equivalence between different forms of alarm, pre- and within-treatment predictors of outcome and possible mode of action. Relapse rates (ranging between 4% and 55%) were reported in 20 studies, with a homogeneous subset indicating that 42% of children relapsed following alarm treatment. So, the enuresis alarm is an effective intervention for children with nocturnal enuresis. There are a number of factors both pre- and within-treatment, which appear to influence its effectiveness and may assist clinical decisions concerning its appropriateness for any particular child.

El-Anany, Maghraby, Shaker and Abdel-Moneim (1999) found that when schedule awakening with the help of alarm clock and fluid restriction (for 2 hours before bed) were used then the success rate was found immediate after treatment 75.5%, after 3 months it was 65.71% and after 6 months it was found 58.5%.

Nettlebeck and Langeluddecke (1979) have conducting a study on dry bed training with 24 samples, these samples were divided in 3 groups: group 1: dry-Bed training with urine alarm. Group 2: dry- bed training without urine alarm, group 3: no treatment control group. The result shown that, all 8 subjects in group 1 successfully treated by 8 weeks, subjects in groups 2 & 3 continued wetting with slightly less frequency and none of the subjects in group 1 relapsed within the 2-month follow-up period.

HiraSing, Van Leerdam, Bolk-Bennink, and Koot, (2002) were conducted a study on children with nocturnal enuresis (n=91). The result showed that Bedwetting could be treated successfully with dry bed training when other treatments such as normal alarm treatment have failed and dry bed training also can have a positive influence on

behavioural or emotional problems.

Utler, Brewin, and Forsythe (1988) were conduct a study to compared the effectiveness of the enuresis alarm alone with a brief version of dry bed training in treating 74 enuretic children. Both procedures were equally effective, and in the total sample a better response to treatment was predicted by the child's report of being teased by siblings. Maternal anger was associated with a greater dropout rate.

Fielding (1980) was compared retention control training (A) and urine alarm (B) on 33 samples, where baseline the mean numbers of wet night's frequency were for group A-23.5 and B- 24.7. After treatment, the mean number of wet nights in 3rd month of treatment: A, 6.2; B, 2.3.

In another study, Hamano, Yamanishi, Igarashi, Ito and Murakami (2000) was using retention control training; to holding voiding once a day to increase bladder capacity for 12 weeks on 60 sample. The out come of the treatment shown that mean wet nights per week was 6.7 (0.87), the number not achieving 14 dry nights 46 were achieve out 60 and relapsing after cure: 5 and failed or relapsing after trial: 51cases out 60,where the baseline wetting (SD) 6.7 (0.9).

Harris, et al. (1977) was conducting a study on retention control training, where group- A: (n=9) retention control training (bladder training) in a camp\ treatment program followed by parental training and group- B: (n=9) waiting list control the duration of treatment: group- A, stage 1 (camp): 5 days; stage 2 (home): 30 days and follow up: 9 weeks. In this study the Baseline wetting: mean number of wet nights per week: group -A, 3.2; group -B, 5 Mean number of wet nights per week: group -A, 2.6; group -B, 5.0, but no differences within groups over time, Follow up, mean wet nights: A, 3.9, which was not significantly different from pre- or post-treatment measures ($F = 1.68$, $df = 2, 16$). Significant main effect of intervention was on bladder capacity in experimental group- A.

Young and Morgan (1972) conducted a review on a long-term follow-up study of over learning in the conditioning treatment of enuresis. They found that studies have reported high rates of relapse following the otherwise highly successful conditioning treatment of childhood enuresis nocturnal. Relapse would seem to be a hazard

inherent in this form of treatment, and to be independent of client variables (Young & Morgan, 1972a). Intermittent reinforcement schedule (Lovibond, 1964; Turner, Young & Rachman, 1970) and of CNS stimulant drugs (Young & Turner, 1965) would be used to counteract the problem of relapse have failed to achieve satisfactory results.

Young and Morgan (1972b) have demonstrated the success of over learning therapy in reducing the relapse rate. This regime requires the child to maintain or regain his learned nocturnal bladder control, to a success criterion of 14 consecutive dry nights, while drinking up to 2 pints of liquid in the hour before retiring. The present paper reports the experience gained in the counteraction of relapse by the use of over learning therapy over approximately 4 yr at the Vale Drive Clinic, at which enuresis is treated by conditioning techniques .

5. Methodological Issues

5.1 Definition of Case study:

A research design is a general plan of how the researcher will go about running and organising his or her research investigation (Walsh, 2001).

According to Kratochwill and Levin (1992), a case study is an intensive description and analysis of a single subject. Researcher Yin (1984) defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.

So, case study defines to collection and presentation of detailed information about a particular participant or small group, frequently including the accounts of subjects themselves. Case study research excels provides an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research. It is a form of qualitative descriptive research that emphasizes detailed contextual analysis of a limited number of events or conditions and their

previous research. It is a form of qualitative descriptive research that emphasizes detailed contextual analysis of a limited number of events or conditions and their relationships. Researchers have used the case study method for many years across a variety of disciplines. Social scientists, in particular, have made wide use of this qualitative research method to examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods.

5.2 Types of Case study:

Yin (1993) has identified some specific types of case studies: **Exploratory** cases are sometimes considered as a prelude to social research. In exploratory case studies, fieldwork, and data collection may be undertaken prior to definition of the research questions and hypotheses. **Explanatory** case studies may be used for doing causal investigations. In very complex and multivariate cases, the analysis can make use of pattern-matching techniques. **Descriptive** cases require that the investigator begin with a descriptive theory, or face the possibility that problems will occur during the project. Each of those three approaches can be either single or multiple-case studies where multiple-case studies are replicatory, or not sampled cases.

Stake, (1995) included three others: **Intrinsic** - when the researcher has an interest in the case; **Instrumental** - when the case is used to understand more than what is obvious to the observer, and **Collective** - when a group of cases is studied.

Pyecha, (1988) used this methodology in a special education study, using a pattern-matching procedure. In all of the above types of case studies, there can be **Single-case** or **Multiple-case** applications.

Generally, this study can follow one of the two major designs: a **single case** study, where only an individual or subject is examined by in-depth interview, and a **multiple case** study, where several cases or events are investigated in depth (Galloway & Sheridan, 1993).

5.3 Advantages & Disadvantages of Case study:

The case study method offers both advantages and disadvantages in psychological research (Kazdin, 1980).

The strengths of case studies: Case study effectively applied in four major areas of qualitative research. This study specifically explain complex causal links in real-life interventions; it describe the real-life context in which the intervention has occurred; this study also describe the intervention itself; and it could be explore those situations in which the intervention being evaluated has no clear set of outcomes (Yin, 1994).

This method provides an opportunity to try out new therapeutic techniques or to attempt unique application of existing techniques. It can challenge to theoretical assumption by providing a 'counter instance'; where a case that violates a general proposition or universally accepted principle (Kazdin, 1980b).

For documentation purposes, this study can be found stable, so that the researcher can repeatedly review and broadly coverage the area with extended time span. It can be used precise and quantitatively. In this method, interview can be provides perceived causal inferences through case study topic focus. Through this method, observation can be covers events in real time and situations or context (Yin, 1994).

The limitations of case studies: The case study methods believe that the study of a small number of cases can offer no grounds for establishing reliability or generality of findings. Others feel that the intense exposure to study of the case biases the findings. It can prove difficult to define in an absolute and clear-cut fashion through the boundaries of the case (Denscombe, 1999).

For documentation purposes, this study may be found difficult, so that the researcher may have selective bias and access can be blocked. In this method, privacy might be inhibiting. Here, response bias can be found through interview. Through this method, observation can be time consuming (Yin, 1994).

Ways to overcoming limitation: Yin (1994) in particular refuted that criticism by presenting a well constructed explanation of the difference between analytic generalization and statistical generalization: "in analytic generalization, previously developed theory is used as a template against which to compare the empirical results of the case study". The inappropriate manner of generalizing assumes that some sample of cases has been drawn from a larger universe of cases. Thus the incorrect

terminology such as "small sample" arises, as though a single-case study were a single respondent. He also suggested three principles of data collection for case studies: use multiple sources of data, create a case study database, and maintain a chain of evidence.

Stake (1995) argued for another approach centred on a more intuitive, empirically grounded generalization. He termed it "naturalistic" generalization. His argument was based on the harmonious relationship between the reader's experiences and the case study itself. He expected that the data generated by case studies would often resonate experientially with a broad cross section of readers, thereby facilitating a greater understanding of the phenomenon.

5.4 Definition of Single Case study:

Single subject research designs that is also referred to as single-case experimental designs or Small N design are designs that can be applied when the sample size is one or when a number of individuals are considered as one group. These designs are typically used to study the behavioral change an individual exhibits as a result of some treatment. In single-subject designs, each participant serves as her or his own control, similar to a time-series design. Basically, the participant is exposed to a non-treatment and a treatment phase and performance is measured during each phase (Gay, & Airasian, 2003). McMillan (2004) has summarized five characteristics of single-subject research.

Reliable measurement: Since these designs involve multiple measures of behavior, it is important for the instrumentation to be reliable. Conditions for data collection such as time of day and location should be standardized and observers need to be trained. Consistency in measurement is especially crucial in the transition before and after the treatment.

Repeated measurement: The same behavior is measured over and over again. This step is different from most experiments, in which the dependent variable is measured only once. Repeated measures are needed to obtain a clear pattern or consistency in the behavior over time. They control for the normal variation of behavior that is

expected within short time intervals. This aspect of single-subject designs is similar to time series studies, which investigate groups rather than individuals and do not provide for a return to conditions that were present before the treatment was implemented.

Description of conditions: A clear and detailed description of the conditions of measurement and the nature of the treatment is needed to strengthen internal and external validity.

Baseline and treatment conditions: Each single-subject study involves at least one baseline and one treatment condition. The baseline refers to a period of time in which the target behavior (dependent variable) is observed and recorded as it occurs without a special or new intervention. The baseline behavior provides the frame of reference against which future behavior is compared. The term baseline can also refer to a period of time following a treatment in which conditions match what was present in the original baseline. The treatment condition is a period of time during which the experimental manipulation is introduced and the target behavior continues to be observed and recorded. Both the baseline and treatment phases of the study need to be long enough to achieve stability in the target behavior.

Single-variable rule: During a single-subject study, only one variable should be changed from baseline to treatment conditions. In some studies two variables are changed together during the same treatment condition. This is an interaction in single-subject research.

5.5 Types of Single Case study:

It helps to give a generalised picture of response particular intervention/treatment. However, it prevents the investigator from making any conclusions about how specific individuals react. This is where single case (or small-N) designs come in useful, a tool that can be used by practitioners to monitor progress of their own work. The idea of single case designs flourished in the 1970s as a means of evaluating the outcomes of one's own practice. This design may take on a simple **A-B** makeup. A practitioner planning to carry out such an experiment with an individual would firstly

need to get a baseline measure of the response or behaviour under investigation (**A**) that refers stability of measures at baseline is advised before proceeding with the intervention, although this may not always be possible. Once this has been established, the intervention is then delivered, changing conditions and measuring how this affects the participant's response (**B**). The intervention is then withheld, with the participant's response measured once again

There are three commonly accepted types of single subject research designs (Wasson)

A-B-A Designs: A-B-A design is an improvement on the above, adding a reversal stage to the design, removing the intervention and then taking another measurement. If the variable being examined is effective, a return to baseline scores should ensure. When this does not occur, the practitioner is left needing to explain what other events could have brought about a change or prevented any change from resulting. The problem with such a design is that practitioners will have reservations about removing a treatment when they are supposed to be helping someone. In an attempt to try and overcome ethical problems related to treatment withdrawal, an A-B-A-B design could be tried, in which an individual is given then withdrawn an intervention and then given it once again. This process can be repeatedly followed creating an A-B-A-B-A-B design, increasing the investigator's confidence in the relationship between the intervention and outcome.

An example might be treating childhood enuresis (bed-wetting). A parent might be advised to alternate a period of fulsome praise for a dry bed with a period when dry beds are treated as normal and no fuss is made. Some children respond better to the first approach, others to the second. The outcome measure would be the number of nights without bed wetting, which would suggest whether one treatment was more effective than another.

Multiple-Baseline Designs: In a multiple-baseline design, researchers systematically vary one of the three parameters (subject, behavior, or setting) while keeping the other two parameters constant. This design choice when a researcher want to establish (or refute) a causal or functional relationship between the independent (treatment) variable and dependent variable is the multiple-baseline.

For example, a student is referred to clinical psychologist with concern about maintaining on-task behaviour in the classroom and concern about anxiety apparently associated with being recently moved to a new school. Records indicate that the on-task problem was evident in the prior school as well. Psychologist believes that a treatment based on brief psychotherapy to build self-confidence will be effective with both problems and decide to focus first on the anxiety symptoms. To implement the multiple-baseline approach, the psychologist gather baseline data on both on-task behaviour and anxiety symptoms, beginning the data gathering for both problems at the same time. After a stable baseline has been obtained (more on this in statistical analysis section), s/he begins treatment of the anxiety symptoms, continuing to gather baseline data on the on-task behaviour problem. When there is some evidence of treatment success with the anxiety symptoms, the psychologist change his/her focus in treatment to the on-task behaviour.

Alternating treatments Design: When control of extraneous variables is an especially important concern, the best alternative in most clinical psychology and counselling applications will be an alternating-treatments design. Baseline data is optional (but recommended if circumstances allow). The essence of this design is a random presentation of at least two forms of treatment and continuous monitoring of the effects. Usually the different treatments will be provided from session to session. The random order for the different treatments is important to increase the likelihood that the observed effects are the result of the treatment rather than some extraneous influence.

For example, a student is referred to clinical psychologist with symptoms of elevated anxiety in the school setting. Two forms of treatment will be compared: 1) weekly individual therapy sessions focused on building self-concept and 2) participation in an after school group guidance activity with open membership. It will be helpful to have some baseline data on the frequency and/or severity of the anxiety symptoms before beginning either of the treatments. This can be as simple as a self-report, perhaps on a scale of ten, of the level of anxiety being experienced by the student. You may also find it helpful to obtain a comparable report from the teacher who referred the student. Before treatment begins, a counterbalanced random schedule for treatment participation should be determined. For illustration, let's assume a ten-week treatment

period during which, in random predetermined order, the student will participate in five individual weekly therapy sessions and five weekly group guidance activities.

It is assumed that either of the treatment alternatives could have an impact on the level of anxiety or that the impact would not be long delayed. It is also assumed that the two forms of treatment are in fact different treatment modalities and that the carryover effect will not be significant.

5.5 Advantages & Disadvantages of Single Case study:

The single case study method offers both advantages and disadvantages in psychological research.

Benefits of single case studies: These are: -

- a. These types of experiments are often consistent with routine practice and so are not time consuming or costly.
- b. The information generated can help fill in the details about exactly 'what works for whom' that is often left unexamined in-group experiments.
- c. As accountability in practice becomes more important, this is a useful method of demonstrating outcomes, and a means of linking research and practice.
- d. It allows for clinical self-monitoring and practice evaluation.
- e. Data from single case designs can be used to supplement group study designs since these often fail to take account of within group or individual differences.

Limitations of single case studies: These are: -

- a. Conflict can arise between research requirements (fixed interventions phases, predetermined & limited goals, and standardised intervention methods) and practice requirements (flexibility, responsiveness to client needs).
- b. Practical constraints: time limits, premature termination and change of client focus/ life events. But perhaps these practical constraints could be overcome through replication of studies and the accumulation of data over time.
- c. Replication of single case studies is essential to allow for the generalisation of findings, yet debates ensue over the extent of reliability and generalisability. To what extent is a single case study sufficient evidence to modify theory? Perhaps these studies can best be regarded as pilots for group designs.

6. Rational for the Present Research

Enuretic children are typically referred to clinical psychologists, because they have a negative impact on children's social and educational development. Children with this problem may be excluded from school and ostracised by their peers, and they may develop conflicting relationship with their parents. This in turn can lead to the development of academic attainment problems, low self-esteem and secondary emotional or conduct problems. So we need to investigate the impact of toilet training or psychological intervention on enuretic children.

There have been extensive studies in development countries where psychologists have worked with enuretic children to minimize their problems. Although there is quite common problem in Bangladesh, but there has been no constructive study to analyse this problem from the psychological perspective.

The present study will conduct to investigate the outcome of psychological management on enuretic children in Bangladesh. In how psychological principles would be work on enuresis and through this study awareness would be built in the people of Bangladesh specially, General practitioner, paediatricians and Psychiatrist. Beside this, present research can be used for future purpose.

7. The Present Study

The present study was aimed to assess the impact of psychological management on the clients with enuresis. From literature review it was seen that most of the client with enuresis significantly improved by psychological management especially behavioural therapy. But in Bangladesh, people are not so aware about psychological management and the problem of enuresis. So, the researcher planned the present study through the research question '**Can enuresis be solved through psychological intervention strategies?**' **If so, how?** In brief the general and specific objectives were mentioned below:

❑ **General Objectives:** To find out the ways to reduce the problem of enuresis by applying psychological management principles. Under this objective the specific objectives are:

❏ **Specific Objectives:**

1. To identify those factors that contributes to enuresis;
2. To solve the problem of enuresis by psychological principles based management

CHAPTER TWO

Methodology

1. Sample: Purposive sampling was used for the present study. This type of sampling was low cost; researcher was able to communicate with participants easily and quickly (Bailey, 1997). For this reason, the researcher was preferred this type of sampling. In qualitative method, researcher can usually use small number of participants ('Exploratory Designs: In depth Interviews and Focus Groups', 2003). That is why in this research, researcher chosen 6 samples with enuresis to investigate the change in their condition after receiving psychological management. 4 out of the 6 clients were taken from Out-patient Department of Paediatric Nephrology at BSMMU (Bangabandhu Sheikh Mujib Medical University) and 2 out of 6 clients were taken from Out-patient Department of Clinical Psychology at DCH (Dhaka Community Hospital). All the 6 samples were between 5 to 12 year-old age group and they all were from middle-income group. A partial description of the participants of the present study is given in Table-2.2. The reason for choosing this particular age group is that enuresis is more common in 7% to 20% of males and 3 % of females ranging from ages five to seven years. At age ten, the prevalence is 3% in males and 2% in females (American Psychiatric Association, 1994). All the participants were selected by maintaining the following inclusion criteria:

- ❑ Repeated voiding of urine into bed or clothes (whether involuntary or intentional),
- ❑ The behavior is clinically significant as manifested by either a frequency of twice a week for at least 3 consecutive months or the presence of clinically significant distress or impairment in social, academic or other important areas of functioning
- ❑ The behavior is not due exclusively to the direct physiological effect of a substance (e.g., a diuretic) or a general medical condition (e.g., diabetes, spina bifida, a seizure disorder),
- ❑ Have not undergone any therapy for controlling enuresis
- ❑ No intellectual deficiency.
- ❑ No cases with known or suspected physical ailments of any sort (e.g., Epilepsy, bronchial asthma, chronic infections.

Table-2.1: Description of participants, their problems and nature of contact.

Name Code	Gender	Age in years	Nature of the contact	Research setting	Nature of Problem
P-1	Female	8 year	Face to face	DCH	Nocturnal and diurnal
P-2	Male	6 year	Correspondence of advertisement	BSMMU	Nocturnal
P-3	Female	9 year	Correspondence of advertisement	BSMMU	Nocturnal
P-4	Male	11 year	Correspondence of advertisement	DCH	Nocturnal
P-5	Male	11 year	Correspondence of advertisement	BSMMU	Nocturnal
P-6	Female	5 year	Correspondence of advertisement	BSMMU	Nocturnal

It is seen from the Table-2.1 that majority of the participants had nocturnal enuresis except one sample, who had both nocturnal and diurnal. Most of the participants were contacted through correspondence of advertisement and most of their settings were BSMMU and only two were seen at DCH.

2. Instruments / Measures: In the present study ‘in-depth interview’, ‘parent recording chart’ and self –monitoring chart were used as key instrument to disclose the participant’s problems and to understand the changes. Beside these, some other tools such as ‘Attitude towards Enuresis’ (Radhika & Thomas, 1999a) and ‘Toilet Training Practice’ (Radhika. & Thomas, 1999b) were also used to assess the contributing factors of the problem and to measure the change. Further, subjective rating scale (0-10) was also used to measure the degree of other psychological problems and to measure the progress. Moreover, in order to appropriate interpretation of the research, the following instruments were also used:

I. In- depth interview: In in-depth interview, the participants and their parents is free to ask questions according to the nature of the respondent’s response. To elicit a vivid picture of the respondents’ perspective, the researcher was designed interview structure on the basis of research objective. Researcher engages with participants’ and

their parents' responses and asking follow-up questions and probes based on those responses. This interview structure is presented in Appendix-1

In this research, the researcher conducted face-to-face interview with the clients individually and also with the parents. Though the interview was followed by the predefined content, but the questioning and probing were done according to the goal set jointly by the therapist, client and their parents.

II. Parent recording chart: This chart was used to involve the parents in the treatment session, so that they understand the progress in day-to-day session and reinforced the client to overcome the problem. It also helped to assess the severity of the problem, drinking and elimination habit of the client.

III. Self-Monitoring chart: In the present research, self-monitoring chart was used to involve the client in this study. It helped the participants to understand his or her problem. It also helped to motivate them to change their elimination habit through self-reinforcement. In this study, creative therapy was used in this chat.

IV. Rating scale: In the present research, a self-report rating scale was used to determine the base-line level of the distress regarding enuresis and to monitor, whether any change occurred during the management phase. It was a 100-point rating scale, where 0 was considered absence of distress and 100 was consider highest level of distressed was assumed absence of distress. This is presented in Appendix-2

V. Attitude towards Enuresis (ATE): In 1999, Radhika and Thomas was designed the scale to measure the nature of attitudes towards enuresis. This scale is a self-report instrument that evaluates the types of attitudes towards the problems of enuresis. It consists of 14 items with a 3-point response scale (3 = completely agree, 2 = somewhat agree, 1 = completely disagree). All the items in the scale with the exception of 5, 13, and 14 are negative statements. The three scale points in the positively worded items are given scores of 3, 2, and 1 respectively. In the cases of the negatively worded items, the reverse order is followed in scoring, that is, 1, 2 and 3. The score for the scale can be obtained by summing up the scores of the individual items. The highest score of this scale is 42 and lowest score of the scale is 14. The

score on the scale implies about parent's types of attitudes towards enuresis, positive attitudes (if the scores on ATE is 22 and below), neutral (if the scores on ATE is 23-33) and negative attitudes (if the scores on ATE is 34 and above). The Cronbach's alpha was found to be 0.36 for the scale and the split-half reliability (after correction for attenuation) was 0.39. The reliability coefficients were estimated using a sample comprising of 448 mothers. The face and content validity of the scale's items were found.

At first, this scale was translated into Bangla and 7 judges evaluated the translation for determining face validity of the scale. Then the English and Bangla version of the scale was administered on 15 samples with 1 week's intervals to assess the test-retest reliability. The correlation between the two versions was found 0.81. The scale was administered four times on the parents of 6 samples in this study. At first the baseline session of the study and at the end last treatment session, 1st follow-up session and finally of the last follow-up session, to see if the results of the parents show any change. This scale is presented in Appendix -3(a).

VI. Toilet Training Practice (TTP): In 1999, Radhika and Thomas was designed the scale to measure the nature of toilet training practices. This scale is a self-report instrument that evaluates the style of toilet training practices. This scale is consists of 14 items with a 4-point response scale. All the items in the scale other than the items 5, 7, and 12 are negatively worded. The response alternatives for the negative items consist of (a) Always, (b) Often, (c) Rarely, and (d) Never are given scores of 1, 2, 3, and 4 respectively. In the case of positive items, the responses are (a) completely agreed, (b) generally agree, (c) generally disagree and (d) completely disagree are given scores of 4, 3, 2, and 1 respectively. The score for the scale can be obtained by summation of the individual scores on all the 14 items. The weights for scoring the items are the same as used in the draft version of the scale. The total score on toilet training practices is obtained by summing the scores on all the 14 items. The highest score of this scale is 56 and lowest score of the scale is 14. The score on the scale implies about parent's nature of toilet training practice, harsh toileting practice (if the scores on TTP is 27 and below), flexible practice (if the scores on TTP is 28-41) and poor toileting practice (if the scores on ATE is 42 and above). High scores on the scale indicate poor toilet habits in children while a low score indicate the practice of

an active and forceful training. The alpha value computed for the tool using a sample of 446 mothers was 0.76. The split-half reliability was found 0.78 using the Spearman-Brown formula. The face and content validity of the scale's items were found. Evidence for construct validity was also obtained when the scores on the test are found to correlate significantly with theoretically related variables like Parental Behaviour ($r = 0.31$; $p < 0.01$, father form and $r = 0.33$; $p < 0.01$, mother form) and attitude towards enuresis ($r = 0.23$, $p < 0.05$).

At first, toilet training practice scale was translated into Bangla and 7 judges evaluated the translation for determining face validity of the scale. Then the English and Bangla version of this scale was administered on 15 samples with 1 week's intervals to assess the test-retest reliability. The correlation between the two versions was found 0.71. The scale was administered on the parents of 6 samples only one time before implementation of treatment for assessing the condition and style of their practicing toilet training. This scale is presented in Appendix -3(b).

VII. Psychological Management: In the present research, behavioural and cognitive based treatment approach was chosen. It was found from previous research that most of the enuretic child developed negative self-perception and negative attitudes about self that maintained this bedwetting problem as well as led to develop other emotional and behavioural problems. It also was shown that behavioral principle based treatment could reduce the frequency of enuresis as well as other emotional and behavioural problems. That's why; a different type of psychological management techniques was used on the basis of the problem. In this study, psychoeducation, creative therapy, scheduled waking and star charts, over-learning and dry bed training were generally used for all of the participants and fluid restriction, retention control training were used only for two clients among six participants. Retention control training, over learning and dry bed training were also used for relapse prevention purpose. All of that psychological management followed a structure that was easily understandable to the therapist, client and their parents. Before providing psychological management, having the client's and his or her parents' informed consent, they were then guaranteed about the confidentiality of their information. Providing psychological intervention for the enuresis clients required a standard format. Even though the goals and structure also differs from the initial sessions to

later sessions. In this study, the goals of the researcher in initial sessions were as follows:

- a) Establishing rapport with the clients and their parents
- b) Exploring the purpose of this study and having client's informed consent.
- c) Normalising the clients and their parents about this problem and generating hope.
- d) Socializing the client as well as their parents into psychological intervention.
- e) Find out the client and their parents' expectations about this management.
- f) Moreover, gathering supplementary information about enuresis problems and other difficulties of the participants.

Generally, a format was used in first intervention session, which was repeated in every subsequent session. After initial sessions, usual agenda for other sessions were as follows:

- a) Brief update from client and their parents and checking mood through creative therapy.
- b) Linkage with the previous session.
- c) Setting the agenda.
- d) Review homework.
- e) Discussion of the issues on the agenda, setting new homework and periodic summaries.
- f) Closing the session with summary and feedback.

Therapy sessions succeeding to the third session maintained the format. In each session, the content varies according to the client's problems and the therapist's goals. In the beginning the therapist took the lead in suggesting agenda items, helping the client to identify his problem behavior and providing strategy training to modify that, devising homework assignments and summarising the session. When therapy progressed, there was a gradual shift in responsibility. In this research, the first three sessions were considered as the baseline assessment and about nine sessions were counted as intervention or management sessions for the client with enuresis. The descriptions of sessions are given in Table-2.2. A general format of the sessions, which was followed in the assessment and management of psychological interventions for each case, is presented in Appendix-4

Table-2.2: Description of treatment session

Length of the session:	Almost 45 minutes except first two sessions
Frequency of the Session:	1 session per week from first week to the last treatment session.
Total number of sessions:	3-12 treatment sessions were provided according to the clients' availability and their need.
Follow-up:	15 days after last treatment session and 30 days after first follow-up session.

All of the participants received on an average 10 sessions and 2 follow up sessions. The length of the treatment sessions were 78 -142 days and their average duration was 106 days.

3. Design: The main purpose of choosing a research design is to plan and explain how the researcher will find out the answers of his or her research questions and how s/he put his or her research strategy in to action. In the present study, single case design with A-B-A type was adopted. It is appropriate to understand the actual phenomenon, feelings, attitudes and behavior of a person and also investigates their perspective in depth (Hicks, 2000). It is not only time consuming or costly but also consistent in regular clinical practice. Beside this single case study involves at least one baseline and one treatment condition. So, the baseline refers to a period of time in which the target behavior (dependent variable) is observed and recorded as it occurs without a special or new intervention. The baseline behavior provides the frame of reference against which future behavior is compared. Although in this design detailed description of the conditions of measurement and the nature of the treatment is strengthen its internal and external validity. It also allows to researcher for clinical self-monitoring and practice evaluation. Moreover, in treatment outcome research, single case study is more popular and accepted research design. Beside this, most of the previous researches in this area were used this design for getting more precious outcome. In brief the design of the present study was given in Table-2.3.

Table-2.3: Topic Guide for the implementation of Baseline (Aa and Ab) Psychological Management (B) and Outcome measures (A1, A2 and A3).

Groundwork was done in different Out-client Department of Paediatrics at BSMMU and Clinical Psychology at DCH for test sample.
↓
One advertisement was circulated for participants in a Daily Newspaper due to unavailability of samples
↓
6 samples were selected by purposive incidental sampling from the respondent of that advertisement following the inclusion criteria.
↓
Establishing rapport with clients and their parents and having informed consent.
↓
Baseline Measures (Aa and Ab) was taken in the first 3 sessions.
↓
Implementation of psychological management (B) in 4-12 sessions.
↓
Out-come measures (A1) were taken after intervention.
↓
First follow up after 15 days of the last intervention session, where out-come measures (A2) was taken.
↓
Final follow up after 30 days of the first follow up, where out-come measures (A3) was taken.

It is seen from the Table-2.3 that in the present research, baseline A was collected from frequency of the bedwetting and the associate factors. Then outcome A1 was measured during the last intervention session B. Therefore, out come A2 and A3 also measured after first (after 15 days of the last intervention session) and final (after 30days of the 1st follow up) follow up.

4. Procedure: For the present study, Out-patient Department of Paediatric Nephrology in BSMMU (Bangabandhu Sheikh Mujib Medical University) and Out-patient Department of Clinical Psychology in DCH (Dhaka Community Hospital) were chosen. Both settings have providing low cost treatment and the referral system of those setting is good and referral persons have supportive response to the researcher and the clients. Beside these, client with enuresis come from the remote

areas to all over Bangladesh. For this reason, the researcher chooses these two settings.

In the beginning, written permission was taken from the authority of both research settings. The format of permission letter is presented in Appendix-5. Permission was also taken from the duty doctor to stop providing medication for enuresis problem, to fulfil the research purpose. For groundwork, 2 test samples were collected from the Out-client Department of Paediatric Nephrology at BSMMU and the Department of Clinical Psychology at Dhaka Community Hospital. Based on such groundwork, treatment guideline and session structure was established. At first it was applied on 7 research samples, which were selected by purposive incidental sampling from two study settings. However, out of these 7 cases, six were dropped out within 2 to 4 sessions. For this reason, one advertisement was circulated for these purpose in a Daily Newspaper "The Prothom Alo" on the 16th September 2008. The copy of the advertisement is presented in Appendix- 6. At first telephone interview were conducted with the number of 19 respondents of that advertisement and 5 of the respondents were refused as they lived out of Dhaka and 14 respondents were invited in both settings, where 8 samples were selected purposively following inclusion criteria. However, after 1 to 3 sessions, 3 cases out of 8 were dropped out. At last, 6 enuresis clients were continued as the sample of this research.

In all of the cases, at first good rapport was established with client and their parents. Written and verbal informed consent was taken from the participants and their parents and they were interviewed by a semi-structured questionnaire without predetermined choices of responses to each question. Baseline data and demographic information were collected during the 2-week observation period. In the present study, frequency of the enuresis problem, along with interpersonal, individual and contextual factors was used as baseline data (A). After that Psychoeducation was given to both clients and their parents. On the third sessions, formulation was shared with both the child and his/her parents. According to the formulation, appropriate treatment (B) was implemented. At last, outcome (A₁) was measured, then providing psychological management (B) through subjective and objective measures. After 15 days from the last treatments session out come (A₂) was measured on first follow up session and after 30 days of first follow up, outcome (A₃) was taken. After taking outcome measures, all of the clients were terminated.

5. Informed Consent: At the beginning of the study, permission was taken from the authority of the Department of Paediatric Nephrology at BSSMU and the Department of Clinical Psychology at DCH, to conduct the study. Then, every participant was clearly informed in words about the title, aim and purpose of the study, according to the participant's and their parent's level of understanding. Participants were also well-informed that their information might be published without their identity. They were also told that the session notes and baseline data would not be shared and discussed with others except the case supervisor and the research supervisor. Clients and their parents were guaranteed of the confidentiality and kept secrecy of their information. They were also informed that they were free to participate in the research process and were free to take out their participation whenever they want. In general, the researcher also pointed out that this study process could not bring any harm to the participants and other people, who suffer from enuresis. The researcher provided a written format of consent for the parents of the participants, which is attached in the Appendix -7.

6. Ethical Considerations: Research ethics deals primarily with the interaction between researchers and the participants of the study. In this study, the following measures were taken to maintain the maximum well being of the research participants.

- ❑ Informed consent was taken stating the study purposes, duration and tasks performed by the researcher from the authority of the Department of Paediatric Nephrology at BSSMU and the Department of Clinical Psychology at DCH.
- ❑ Informed consent was taken from the individual participants as well as their parents before assigning them into the research task. They were also allowed to withdraw their participation at any time.
- ❑ Research issue and its objectives were selected regarding the well being of the research participants.
- ❑ The information of the participants were handled sensitively to confirm their confidentiality.
- ❑ At last, the raw data were kept in confidentially after the completion of the research and all the data in the computer file were saved with out participants identifying name, address etc. Beside this, there is no real name of the participants were used in the research document.

❑ Furthermore, the findings of the research provided clear evidence in support of the well being of the research population.

7. Analysis: Data analysis is the process of systematically arranging and presenting information in order to search for ideas like field notes, interview sheet and other accumulated materials (Fraenkle, & Wellen, 2000). Descriptive Qualitative analysis was used in the present study. Qualitative method was followed for analysing the data as it can be easily summarized to facilitate the communication of the finding. Quantitative analysis was also used for estimating the process of the outcome obtained in this research, through the implementation of intervention.

From the beginning of the data collection, almost all session conversations were written immediately after completing the session. Then data were organised according to the research objectives. After that researcher fully conceptualised the data, analysis was started.

The major outcomes were identified according to the research objectives. These were:

- ❑ Category -1: Frequency of enuresis and its changes before and after psychological management
- ❑ Category-2: Individual problems and its changes after psychological management.
- ❑ Category-3: Interpersonal problems and its changes after psychological management
- ❑ Category-4: Contextual problems and its changes after psychological management.
- ❑ Category-5: Subjective rating of the problems and its changes after psychological management.

Individual case summary was made for each participant and based on the entire individual case summary, combined summary was prepared separately. The individual case summary showed the diversity among the participants and combined case summary reflected the similarities and contrast features of the participants. Besides analysing the data according to the research objectives, descriptive case summary of the participants were also presented to have in-depth understanding about enuresis problem of the participants and the process of changes after providing psychological management.

CHAPTER THREE

Results

The results of the current research are presented in two parts.

Part-I

(a) Presentation of the case study: Among the six cases, only one case report is presented in this part in a detailed descriptive format and the major parts of the results of other five individual cases are presented in this part and rest of sessions' details are presented in Appendix. In this section, the actual names of the participant are not disclosed in order to maintain confidentiality.

(b) Presentation of summary of the cases: In this section, summary of the six cases and their qualitative analysis were presented.

Part-II

Presentation of the findings: The findings, which were acquired through qualitative analysis, were presented in this part. In this part, data were presented through some table and figures.

Part-I (a)
Presentation of the case study
: Case P1:

How the case was referred:

The case P1 was an 8 years old girl who was born on 29th March 2001 who had a bed-wetting problem when asleep and while she was awake she also used to wet her pant. For this problem her family physician referred her to the Chief Clinical Psychologist at Dhaka Community Hospital. The paediatrician and the clinical psychologist from the Dhaka Community Hospital diagnosed her to have nocturnal and diurnal enuresis. She was then referred to the current researcher.

Description of the problem:

P1 and her parents came to the researcher for her nocturnal and diurnal enuresis problem. When asleep, she did wet her bed at least once in daytime and 1-2 times at nighttimes, and also during the daytime while awake she did wet her pant 2-3 times. During the in depth interview while the patient was being assessed, other problems were discovered by the present researcher.

1 Physiological: P1 used to sleep very deeply and sometimes she used to cry and shout in her sleep. She had a poor appetite and her mother also mentioned that she drank very little water. Her family physician assumed that her bladder contained low volume.

2 Cognitive: P1 demonstrated very little curiosity and eagerness. She did not have any attention in her studies and without any pressure from others she could not do any work.

3 Emotional: P1 always avoid risky behavior such as touching the iron. She always used the rail when climbing the stairs. If she saw anyone behaving angrily she became extremely scared.

4 Behavior: P1 was not a demanding child but was very stubborn when it was time to study or eat. She had a habit of retaining urination and refused to use the toilet without pressure from her guardians.

5 Social: P1 was a very unsocial child. She could not interact easily with other children at school or guests at home.

History of the problem:

Since birth P1 used to urinate on her bed during the night. However, after the birth of her younger brother, P1 started diurnal enuresis on her pants except during the time she spent at school or outside the house. Usually at night she used to wet her bed once or twice but during the cold or rainy days her bed-wetting used to increase to two or three times at night.

Relevant background information:

The following information was related with the problem of P1:

1. Personal factor: Following factors contributed her enuresis problems.

- **Birth** – During the time of pregnancy, P1's mother had a thyroid problem. P1 was born prematurely by one month but her weight was normal.
- **Development** – Her neck became strong timely, she learned to sit her own when she was 8 months old, to walk at the age of one and half year, to say one or two words when she was two and half years old; and at three years old, she learned to speak fluently. She was not able to hold a pencil properly at the age of four, but compared to others in her age group, she had a better observation power.
- **Temperament** - P1 was an undemanding girl since childhood. She was never unnecessarily curious about anything and never showed extreme courage. However, if anyone asked her to do anything, she would refuse to comply unless forced to. This type of behavior she demonstrated mostly with her mother.
- **Medical** – At the age of one and half years old, she suffered from severe fever and seizure and was taken to hospital. Other than that she did not have any other serious illness.
- **Academic history** – She started attending kindergarten when she was four years and ten months' old. However, she was very silent at school and if not instructed, she would not write anything. After two years she was transferred to the primary school. She never had excellent results in school. For example, her score was 15 marks in Bangla and 4 marks in English. However, when guided by her teacher, she was able to acquire better marks such as 77 in Mathematics.
- **Social** – Usually at home she was friendly with everyone but did not like to interact with any unknown people because of her shyness and introvert nature.

2. Contextual factor: Following factors contributed her enuresis problems.

- **Family environment** – P1's father was a 39 years old Lawyer and his mother is a 31 years old housewife. Both parent completed Masters Level in their education. P1 lives in a joint family with her Grandparents, her dad's brother, his wife and their children; her dad's sister, her husband and their children. Every member of the family is very close and got along well and because of that everyone was worried about her enuresis problem. They all took many steps to try to resolve this problem. P1 usually used to sleep with her grandmother. Her grandmother tried to wake her up a few times at night but P1 used to become angry with her. P1's favourite member of her family is her dad's brother and youngest sister. P1 does not have any other family members from both the parents' side who suffers from enuresis problem.
- **Parental relationship** – P1's parents have a very good understanding relationship and they are very supportive with each other. P1's parents used to spend more time with their younger son rather than her.
- **Attachment with parents** – P1 is closer with her father than her mother. However, when creative therapy 'Heart String' exercise was used on P1, where P1 drawn a series of evenly spaced circles, one inside the other, in the centre of the smallest circle drawn like a heart shape and wrote her name inside it. Then explained to P1 that the names of the people who were most important to them were to be written in the next circle closest to the heart and then other people who were not quite so close go in the next circle, and so on. She claimed that in her inner heart is her mother and she liked to stands both of her father and uncle at the second position in heart string.
- **Toilet training** – Neither of P1's parents provided sufficient toilet training for her because they thought as she gets older she will overcome her bed wetting problem on her own. However, when P1 was 5 to 6 years old and did not overcome her enuresis problem, her parents tried to feed her honey water, zinc, etc. according to the instructions of other members of the joint family.

Session conduction:

A total of 14 sessions were done with P1. There were 14 sessions done over a period of 142 days. The 1st two sessions were baseline assessment, one session was for formulation sharing and goal setting, nine sessions were treatment session and the last two sessions were for follow up. In every session, the appearance, behavior and

emotional reaction of P1 and her parents was observed, which also helped to understand the problem in-depth.

▪ **1st session** – P1 and her parents were introduced with the researcher and a rapport was built up amongst them. They were told that this treatment will be used as a research purpose and P1's parents filled a consent form. To build up a rapport with P1 and to acquire information from her, creative therapy was used. They were educated about psychotherapy process. After the therapist normalized P1's enuresis problem, then they felt relief that this types of problem would be reduced. The expectations of P1 and her parents were asked and they were advised what the realistic outcome should be. Information was gathered regarding P1's enuresis problem and other related problems by semi-structured interview. To gather the baseline information P1 was given a self-monitoring chart and her parents were given a problem-recording chart as a homework assignment.

Therapist's Observation: At the beginning of this session P1 was not easygoing at all. Her facial expression showed fear and anxiety and she used to bite her lips nervously. Her parents were very supportive but their expectation was very high. At the end of the session P1 started to become relaxed. P1 and her parents were very eager to take home their assigned homework. P1's parents had high expectation that she will recover from this problem within a session.

▪ **2nd session (Aa)** – Feedback was taken from P1 and her parents regarding the enuresis problem. Previous week's homework was checked for baseline data, which showed that the diurnal enuresis was three times and bed wetting during the day was twice. P1's nocturnal enuresis occurred eight times and out of which one night was done twice. Other than that, a baseline data regarding P1's academic and social performance, her behavior and parental attitudes toward her problem was collected. P1's parents informed the therapist on how they practiced toilet training with her. The score of P1's parent Toilet Training Scale (TTP) was 47 that indicated less effort and Attitude towards Enuresis (ATE) score was 38 that indicate negative attitudes. P1 and her parents rated on a scale of 0 to 100 (100 being high) the problem of P1 with enuresis and other related problems. Regarding the present problem condition, in diurnal enuresis, P1 rated this as 60 and her parents rated as 80, in nocturnal enuresis,

P1 rated it as 70 and her parents rated it as 100. Besides these, her stubbornness problem was rated by P1 as 60 and by her parents rated it as 80. The poor motivation in study was rated by P1 as 70 and by the parents rated it as 80. At the end of this session P1 was given a self-monitoring chart and her parents were given a problem-recording chart as a homework assignment. During this session her mom informed that she had to take time more than other people to acquire anything. Therapist assumed that she might have low average IQ, so therapist wanted to test her observation power. To do this, few things were removed, which she was able to notice. That was removed was a doll's shoe and a different colour of a ball.

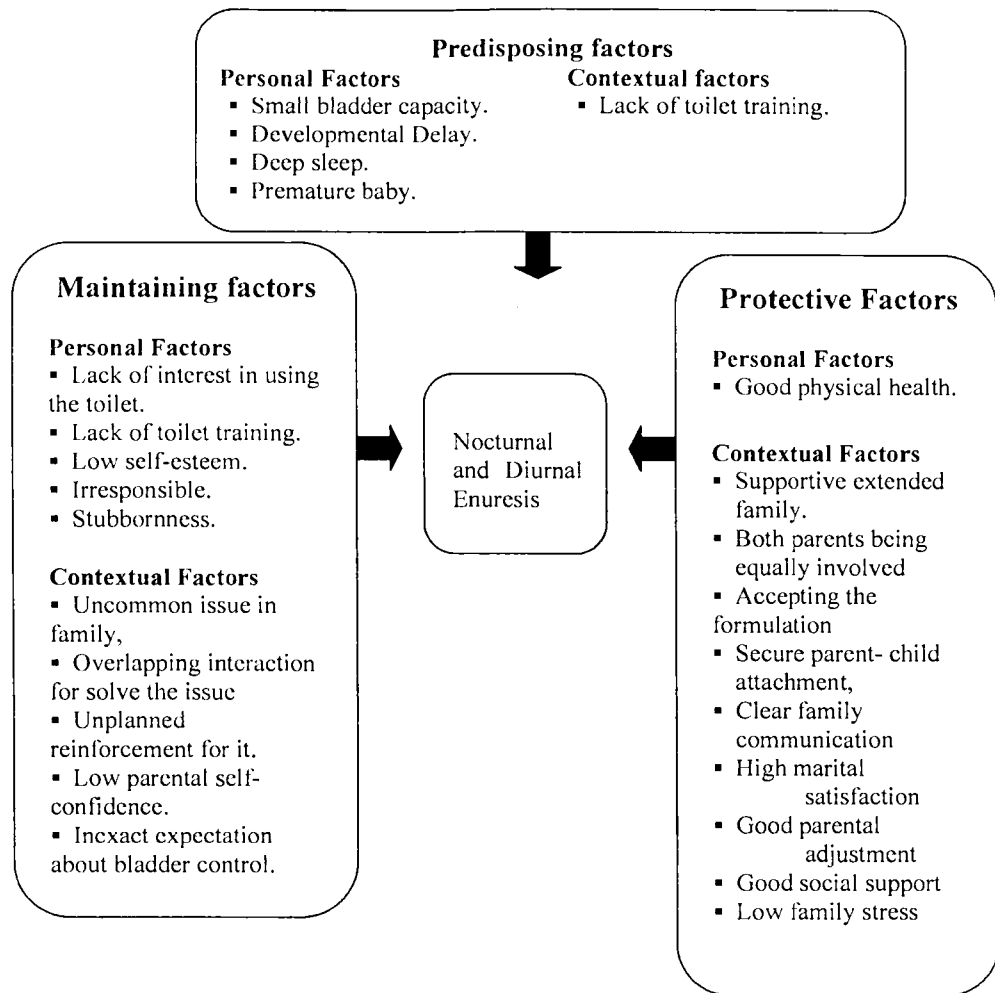
Therapist's Observation: At the beginning of the session, P1 was more easygoing than before and asked many questions on her own about the setting. P1's eagerness towards doing homework was less during this session. However, on the days she did not do her homework, when highlight her all good qualities with the help of her mother, and then she became more eager to do it. P1's mother filled out ATE and TTP with a lot of enthusiasm.

- **3rd session (Ab)** – At first the feedback was taken from P1 and her parents, then homework was checked, which showed that the diurnal enuresis was four times and bed wetting during the day was twice. P1's nocturnal enuresis occurred seven times. After that, formulation was shared, treatment goals were set and finally homework was given. Previous week's homework was checked.

Shared Formulation: Formulation is used to determine what the predisposing causes of her problem are and which factors contributed in maintaining her enuresis problem. The potential factors that can help P1 overcome her problem were discussed. It was described to P1 and her parents about her problem through this model. The detailed formulation presented in the figure: 3.1

In the Figure-3.1, it is demonstrated that the predisposing factors were developmental delay, small bladder size, lack of toilet training, as well as severe deep sleep. P1's problems were due to the above predisposing factors and not because of any precipitating factors.

Figure: 3.1: Formulation of the case P 1



However, after the birth of her younger brother, she developed diurnal enuresis. The maintaining factors were lack of interest in using the toilet, lack of toilet training, irresponsible behavior and stubbornness. Also, since none of the other family members were educated regarding this issue, several types of treatment methods was tested on her. The potential factors that contributed towards her good prognosis were her good physical health, supportive extended family members, both parents being equally involved in her treatment and accepting the formulation provided.

Management Goal: in the first two sessions, assessment of the problems and its impact in different areas were done. After that the goals of management were set collaboratively with P1 and her parents. It was decided that the goals of intervention would be:

- ❑ To recover from Diurnal enuresis
- ❑ To reduce Nocturnal enuresis
- ❑ To try to overcome P1's stubborn behavior.
- ❑ To motivate towards her studies for trying to achieve better marks.

Management Plan: The researcher planning the following management strategies on the basis of P1's personal and environmental resources for the fulfilment above mentioned goals. During baseline assessment session, it would be revealed that P1 has average IQ and she was not take initiative by personal interest, so this would be more appropriate for her.

Table-3.1: Rational of Management Plan for P1

Management Strategies	Purpose of selecting
(i) Sychoeducation:	For providing knowledge about bladder functioning.
(ii)Schedule awakening:	For build up habit to visit toilet after certain times.
(iii)Cleanliness training :	For develop self-responsibility
(iv)Reward System :	For encourage her to involve in therapeutic process.
(v)Retention control training :	For developing ability to hold his urine for certain time.
(vi)Over learning training:	For developing capacity to hold extra fluid at night time.
(vii)Dry bed training	For put off P1's enuresis problem immediately
(viii) Problem solving approaches:	For reducing stubborn behaviour
(ix) star chart:	For maintaining progress.

Therapist's Observation: P1 was very happy because she did not wet her bed at the night of this session. When her case formulation was shared with P1 and her parents, they accepted that formulation and they wanted to know how to change themselves.

- **4th session (B1)** - Feedback was taken from P1 and her parents regarding her enuresis problem. Previous week homework was checked which showed that diurnal enuresis and daytime bed-wetting two times and nocturnal enuresis was seven times. To achieve the first two goals such as to reduce nocturnal and diurnal enuresis, the following management was applied.

Psychoeducation: Psycho-education was given regarding the function of bladder and kidneys and how it is related to enuresis and was demonstrated by using water and

balloons. Also they were educated on how enuresis can affect a child and her family and how it can contribute in causing other related problems for the patient. Further psycho-education was given to the parents regarding their duties towards the application of treatment.

Role -play: To motivate P1 a role-play was done using two dolls showing the role of a mother and a child with enuresis problem. It was shown to her the baby doll held her urine until she had to wet her pants then the mother doll yelled at the child. By doing this P1 was able to relate her own problem and she said that when her mother yells at her for this same reason she feels that she is unloved. It was then shown to her by using the same dolls, that the girl doll started to use the toilet in timely schedule and overcame her enuresis problem and the mother doll showed a lot of appreciation. This role play encouraged P1 to try to use the toilet at home regularly.

Schedule awakening: After motivating P1 to involve the management by using role-play, schedule awakening was provided to develop the habit of going to toilet and urinating. The therapist showed P1 and her parents how they can use an alarm clock every two hours to schedule P1 to use the toilet. At first, waking P1 just before the parents go to bed and systematically waking her half hour earlier on nights several following dry nights, until P1 awakens to urinate without support.

Reward system: For the better outcome, the parents were advised to use a star chart and a reward system if P1 was able to follow the schedule properly. P1 could record and observe successes, and this reward system acted for P1 to achieve dry nights. The therapist negotiated the schemes of this system with P1 and her parents.

Cleanliness training: For increasing probability that involve P1 to take responsibility for managing the consequences of wetting her beds and pants, at first P1 was motivated for cleaning herself when she wet her bed and pants through distancing technique by using the same dolls that used to wet bed and pants. It was directed to the parents that if P1 wets her pants or bed then she should be responsible to clean up the entire mess on her own.

Homework assignment: For further management procedure purpose parents were also told to observe the time difference P1 urinates after drinking water. For homework,

P1 was given a self-monitoring chart and parents were given parents' recording chart.

Therapist's Observation: At the beginning of this session, P1 and parents were very eager to learn about what kind of treatments would be provided. At the end of the session, when given psycho-education regarding this problem, P1's parents realized the mistakes they made regarding P1's upbringing.

- **5th session (B2)** – The plan of this session was taking feedback from P1 and her parents, homework was checked and further intervention was provided. For reducing nocturnal and diurnal enuresis, the following management was applied.

Outcome of Previous Management: Frequency chart was checked which showed that diurnal enuresis was only once, no occurrence of daytime bed-wetting and nocturnal enuresis was reduced to four times. For this she was given three of the middle rewards from the reward system. According to the parents, P1 was excited to use the toilet and cleaned her pants and beds at the beginning but towards the end of the week her enthusiasm was decreased.

Retention control training: Parents and P1 were then educated on retention control training. Instead of the previous two hourly schedules it was recommended that P1 should tell her parents when she feels the need to use the toilet and after three minutes from that time her mom will allow her to use the toilet. This process will help P1 to learn to hold her urine for three minutes, which will help her overcome diurnal enuresis and reduce nocturnal enuresis. If she can successfully retain her urine for the given three minutes, then slowly her time will be increased to 6 minutes and eventually to 45 minutes. Her parents were told to keep the reward system for this practice.

Psychoeducation about intellectual stimulation: It was counselled to P1 and her parents that what's the necessity of stimulation for a child's intellectual development, how a child stimulated her own intellectual capacity by her parents by quiz competition of family members and inspiration to read in story books and extra curricular activities. This was used for achieving fourth goal.

Homework assignment: For further management procedure purpose, P1 was given a

self-monitoring chart and parents were given parents' recording chart as homework.

Therapist's Observation: In this session P1 and her parents were very pleased because her problem was somewhat solved.

- **6th session (B3)** –The aim of this session was as previous session such as feedback was taken from P1 and her parents regarding the enuresis problem, homework was checked and further intervention was provided. To reach the goal, the following management was applied.

Outcome of Previous Management: Previous week's homework was checked which showed no occurrence of diurnal enuresis, bed wetting during the day was only once and nocturnal bed-wetting was four times. Parents only practiced the retention training for the first three days because during that time P1 did not have any enuresis problem, so, they felt that she has overcome her problem.

Retention control training: Parents and P1 were again educated on retention control training. Parents were then counselled to continue the retention control practice.

Problem solving skills and reward systems: For achieving the treatment goal of reducing stubborn behavior, A-B-C was applied for understanding the situation where stubborn behavior occurred. Parents were informed to notice when P1 behaves stubbornly. P1 said that when she plays and is pressurized to study or eat, then she usually behaves stubbornly. P1 was then explained what will happen via the method of A-B-C. In A-B-C, A -means antecedent, which can be P1 being told to study in the evening. B-means behavior, when antecedent occurred then P1 behaving stubbornly and refusing to study. Finally, C- means consequence, which would be her mom yelling or hitting her for not listening to what she is told to do. After this sequence was explained to her, she was asked what she could do to prevent her mom from yelling or hitting her. It was then portrayed to her that instead of being stubborn she could ask her mom for an extra few minutes of playtime and then study, which will help her get better marks and others will appreciate her more. P1's mom was encouraged to give positive reinforcement every time P1 followed her instruction and provide her with a reward. However, if she refuses to listen then instead of yelling at her she should tell P1 that she would not be able to get any rewards. At the end of the

session P1 and her parents were given a self-monitoring chart and parents were given parents' recording chart.

Homework assignment: For further management procedure purpose, P1 was given a self-monitoring chart and parents were given parents' recording chart as homework.

Therapist's Observation: At the beginning of the session, her mother was found a bit guilty for her mistake.

- **7th session (B4)** – The target of this session was to take feedback from P1 and her parents, to check homework and to provide additional management. For reducing nocturnal and diurnal enuresis, the following management was applied.

Outcome of Previous Management: Feedback was taken and P1's parents said they gave her four stars for not behaving stubbornly in the previous week. Homework was checked and it was found that she showed only three occurrence of nocturnal bed-wetting.

Dry bed training: The goal of the therapist during this session was to educate the patient and her parents about dry bed training, which included schedule, cleanliness, and retention control training. P1 and her parents were motivated to give a little time and effort for dry bed training because this would produce a little bit of disturbance in their sleep. At the first night, P1's parents had to get up every one hour to check if P1 wet her bed and if she does not wet her bed, P1 would not have to awake from her sleep. However, if she does wet the bed, P1 would have to get up and clean up the entire mess and then she had to go to the toilet and try to urinate again. If she is able to urinate in the toilet at that time, she would be able to go to bed and if not, then she would have to drink a glass of water and then go to bed. On the second night, previous procedure would have to be followed except the time of checking for bed wetting would change from one hour to two hours and on the third night the time would increase to two and half hours. If P1 wets her bed twice in that week then the entire dry bed training procedure would have to repeated from the beginning.

Homework assignment: For further management procedure purpose, P1 was given a self-monitoring chart and parents were given parents' recording chart as homework.

Therapist's Observation: At the beginning of the session, P1's self confidence increased and she was eager to learn about new techniques, which she did not show in the past. Her parents were also pleased because P1's stubbornness behavior decreased slightly. But in the mid of the session, when dry bed training was discussed, P1 and her parents were found quite anxious for new practice.

- **8th session (B5)** - At first the feedback was taken from P1 and her parents, then homework was checked, after that the aim of this session was to apply advanced intervention to achieve the main goal.

Outcome of Previous Management: In the beginning of the session, feedback was taken from P1 and her parents. Previous week's homework was checked which showed that the bed-wetting was only done twice and she was given 5 stars for not behaving stubbornly.

Dry bed training: Since P1 only wet her bed twice last week, this week she was encouraged to try dry bed rehearsal and repeated the procedure again.

Reward system and When and then rules: To motivate P1 to achieve better marks, reward system and when and then rules was applied. For example, when she would be able to acquire 70 marks in each subject, then P1 would be rewarded with a sweet such as kalojam. When P1 would get 50 marks in all the subjects, then she would be rewarded with an igloo cone cream and when she would get 40 marks in all the subjects then she would be rewarded with a chocolate bar. P1 and her parents were asked what would happen if she didn't study and how others would react to this; they all then agreed that the outcome would be bad. P1 became a little bit more encouraged when she learned that if she studies a little bit everyday at a fixed time then everyone would be more loving with her and her teachers and classmates would look at her differently. However, whether or not she would be able to do this seemed questionable. Then her bed-wetting problem was discussed which she was becoming successful slowly after trying.

Homework assignment: At the end of the session, homework was given like the previous session.

Therapist's Observation: P1 was happier during this because her diurnal enuresis problem was resolved and nocturnal enuresis decreased significantly. Also she became more hopeful that she would soon be able to overcome her problem completely.

- **9th session (B6)** – This session was done after 22 days and feedback was taken. The target of this session was taking feedback from P1 and her parents, homework was checked and additional management was advised.

Outcome of Previous Management: Homework was checked at the beginning of the session. The homework revealed that P1's nocturnal enuresis was twice in the first week, once in the second week and only once in the last eight days. Her parents said that P1 now gets up and goes to the bathroom on her own. By dry bed training she was able to have a 5-hour gap instead of two hours in the last 22 days. Due to this success, P1 rated herself 80% better and also because of her improvement in her studies. P1's previous mark in Bangla subject was 16 and now 64 and English was 4 and now 46 marks. However, her Mathematics marks decreased slightly from 77 to 72 and she was encouraged to try harder on this subject.

Dry bed training: P1 and her parents were counselled to continue with the dry bed training to reduce the frequencies of bed wet. According to the dry bed training, P1 would get up half hour before her alarm time to use the toilet when she was unsuccessful and once she became successful the time would be added an half hour.

Homework assignment: At the end of the session homework was given for monitoring change. P1 was given a self-monitoring chart and parents were given parents' recording chart as homework.

Therapist's Observation: P1 was more responsible towards her duties. She also felt more proud because her academic results improved. Since her nocturnal enuresis did not improve, she started to become a little frustrated.

- **10th session (B7)** – This session was done after 15 days because P1 had suffered from toothache and typhoid fever. The plan of this session was not fulfilled and new problem arisen. P1's parents informed that P1 was fearful of going to the dentist

because she is scared of needles and she also had bit of temper and did not want to eat timely.

Outcome of Previous Management: At the beginning of the session feedback was taken and homework was checked which showed that due to her illness P1 could not apply her dry bed training properly. In the first week of the previous 15 day period, she made wet her bed three times and only twice within the last eight days.

Pros and cons: P1 was given a psycho-education on the pros and cons of going to the dentist. Psycho-education was also given to P1 and her mother on the benefits of eating properly and how it would help P1 to overcome her illness quickly. To help P1 with her bad mood it was counselled that her parents take her out of the house for refreshment. Since P1 did not want to study, she was recommended to do her study in a playful way.

Systematic desensitisation: To help get rid of her fear of needles this technique was applied. At first P1 was relaxed through breathing relaxation and was asked to imagine a series of progressively more fearsome situation in dentist's chamber. This was done over and over.

Dry bed training: Although, the therapist wanted to apply over-learning training it was not possible because of previous week's results, it was recommended that P1 continues with the dry bed training.

Homework assignment: At the end of the session homework was given for monitoring change. P1 was given a self-monitoring chart and parents were given parents' recording chart as homework.

Therapist's Observation: P1 was suffering from typhoid fever during this session and was a bit inattentive and moody, and her parents seem confused at the beginning of the session. At the end of the session they were free from confusion.

- **11th session (B8)** – This session was done after 16 days. At first the feedback was taken from P1 and her parents, then homework was checked. After that the aim of this session was to apply advanced intervention to achieve the main goal and to prevent relapse.

Outcome of Previous Management: P1 had only wet her bed the first day and was able to keep her bed dry for 15 days continuously. Her parents said that P1 eagerly applied the therapist's instruction than before. Due to this P1 and her parents were happy.

Over-learning training: The therapist educated P1 and her parents on over-learning training. This technique on the first day P1 was advised to drink 4 oz of water 15 minutes before going to sleep. If she would be able not to wet her bed in the first two days, then the amount to drink would be increased to 6 oz on the third day, 8oz on the fifth day and eventually it would be increased to 10 oz. According to her age and bladder capacity 10 oz of water was the highest number that could be given. However, if for any reason P1 would wet her bed then the amount of drinking water given to her before bed would be decreased by 2 ounces accordingly. P1 seemed a little nervous about this therapy because she was not sure whether or not she would be successful at it. P1 felt less nervous after it was rationalized to her that this technique may seem difficult but it would be very doable by her and it would help her from future relapse with her enuresis problem. P1's mother was also counselled to apply the reward system again for this technique.

Homework assignment: At the end of the session homework was given for monitoring change.

Therapist's Observation: At the starting of the session, P1 was very happy in this session because she was able to acquire a doll that was the top prize for the reward system. She also brought a card for the researcher to show her gratefulness. At the ending of the session, P1 was nervous for over learning procedure, but when the pictures of her improvement were drawn, she became happy.

- **12th session (A1)** – This session was done after 10 days. Common procedure was followed as before. Therapist along with P1 and her parents all decided that the next session would be after 15 days as follow up session. For measuring outcome of the intervention (A1), regarding P1's academic and social performance, her behavior and parental attitudes toward her problem was assessed. During this session, her parents filled out Attitude towards Enuresis questionnaire and the score was 28 which

indicated normal attitude but near to positive.

Outcome of Previous Management: Homework showed only one day of bed wetting on the first day because P1 was not able to apply the over-learning training properly on that day. Even though P1 had one night of bed wetting, her mother still gave her the top reward from the reward system.

P1's mother also reported that P1 does not behave stubbornly anymore and she has developed eagerness towards her education and sits down to study on her own. P1 also reported that she has made a friend at school, with whom she plays during break period, and now likes attending class.

Again, P1 and her parents rated on a scale of 0 to 100, where P1 gave herself 100 % marks and her parents gave her 90% marks.

Homework assignment: At the end of the session, homework was given for monitoring change. P1 was given a self-monitoring chart and parents were given parents' recording chart as homework.

Therapist's Observation: P1 and her parents were very happy with P1's improvement with her problem. Her mother filled out the ATE with more eagerness than before.

- **13th session (A2)** - First- follow up session was done after 15 days and in this session outcome intervention (A2) was measured, regarding P1's academic and social performance, her behavior and parental attitudes toward her problem was collected. During this session, her parents filled out attitude towards enuresis questionnaire and the score was 26, which indicated positive attitude.

Outcome of Management: P1 recorded herself by self-monitoring chart where it was found that there were no occurrences of enuresis. Both P1 and her parents rated P1 as 100% improved with her problem.

Therapist's Observation: They gave the impression that P1's problem improved so much that they are very happy.

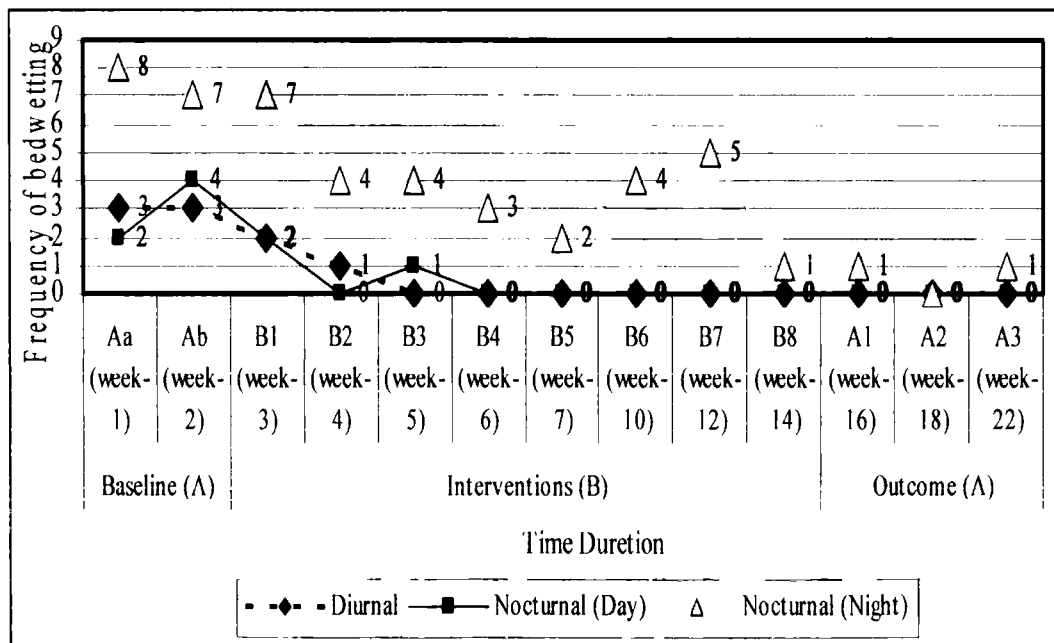
- **14th session (A3)** – This session took place after one month. For measuring

outcome of the intervention (A3), regarding P1's academic and social performance, her behavior and parental attitudes toward her problem was collected. During this session, her parents filled out attitude towards enuresis questionnaire and the score was 24, which indicated more positive. At the end of the session, the entire problem and therapy from the beginning was discussed with P1 and her parents and they were all quite surprised that P1 was able to overcome her problem very quickly within 14 session. This was the last session with P1 and she was terminated as a patient.

Outcome of Management:

It was reported that once during the middle of the month P1 had a slight occurrence of incontinence in her sleep and awoke right away to clean herself and she used the toilet on her own. P1's overall improvement on both nocturnal and diurnal enuresis is presented in Figure- 3.2.

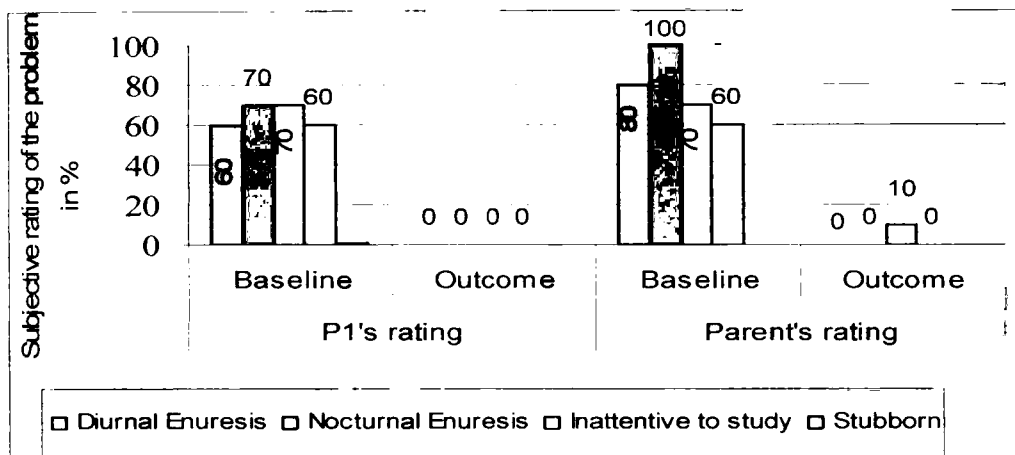
Figure-3.2: P1's Journey of overcoming Enuresis.



The Figure-3.2 shows that the frequency of diurnal enuresis was high on initial sessions and after sixth sessions (B3) it was removed. It also indicates that daytime nocturnal enuresis was also removed within seventh sessions (B4). This figure also reveals that night time's nocturnal enuresis was high in second session (Aa) and it gradually decreased over sessions.

P1 also improved in her studies and her stubborn behavior was reduced. Last month she only had stubborn behaviour for once. The subjective ratings of P1's problems are presented in the Figure-3.3.

Figure-3.3: Achievement of the treatment goal of P1's problem through subjective rating of the problem.



The Figure-3.3 indicates that in initial session, the subjective ratings of P1 problems varied between P1 and her parents. But in the follow up sessions, when outcome were measured, those were quite same.

Therapist's Observation: For the achievement of the progress by P1, she and her parents both were very much satisfied. But P1 was slightly upset during termination because she would miss her therapist.

Case Summary:

P1 case summary is presented in Table-3.2, where nature of the enuresis, contributing factors and treatment goals, baseline and implementation of management and outcome of the management were discussed. It is demonstrated that P1 had both nocturnal and diurnal enuresis, where contributing individual factors were low bladder functioning, deep sleep, lack of interest to go to toilet, speech and walking delays, low self-esteem, irresponsibility and stubbornness. Among these problems, contributing interpersonal factors were multiple approaches implement with her, poor toilet training; and contributing contextual factors were low parental self confidence towards her, uncommon problem in family so they could not handle it efficiently, inappropriate reinforcement applied for it and moreover unreal expectations of her

parents about bladder control. To address all of her problems and their contributing factors, four treatment goals were set with P1 and her parents.

The Table 3.2 also reveal that For receiving first goal; that was to recover from diurnal enuresis, psychoeducation, creative therapy, schedule waking, cleanliness and reward system, and retention control, were applied for reducing and preventing this problem. Through these interventions, P1 gradually overcame this problem. In baseline assessment session Aa and Ab (Week 1 and 2), she did wet 3 times in a week and she was able to overcome this problem within 5 weeks. So, 100% improvement was found in the last treatment session A1 (from week 14 to 16), the 1st follow up session A2 (from week 16 to 18), and the final follow up session A3 (from week 18 to 22).

For addressing the second goal; to reduce nocturnal enuresis; psychoeducation, creative therapy, schedule waking, cleanliness and reward system, and dry bed training were applied for reducing this problem and retention control and over learning were used for preventing relapse. By using these managements, P1 gradually reduced this problem trough session to sessions. In baseline assessment session Aa and Ab (Week 1 and 2), she did wet 8 times in the 1st week and 7 times in the 2nd week and she was able to reduce this problem within 7 weeks. While, she did wet only one times in the last treatment session A1 (from the week 14 to 16), as well as in the final follow up session A3 (from the week 18 to 22), and she did not wet her bed in the 1st follow up session A2 (from week 16 to 18). So, 97.7% improvement was found from the 1st baseline session (Aa) to the final follow up session A3 (Week-22).

The Table 3.1 also describe that for achieving third goal, both star chart and rewards system was used for reinforcing to reduce stubborn behavior, and problem-solving skills (A-B-C) were used for realising the situations when and how stubborn behaviours were occur. It shows that absence of stubborn behavior in the last session A1 (from the week 14 to 16) and the 1st follow up session A2 (from week 16 to 18), and only 1 time in the final follow up session A3 (from the week 18 to 22), where the base line data was 10 times in a week. Therefore, 100% improvement was found from the 1st baseline session (Aa) to the final follow up session A3 (Week-22).

Table-3.2: Summary impression of P1.

Types of Enuresis: Both Diurnal and Nocturnal Enuresis				
Contributing Factors	Treatment Goal	Baseline Data (Week- 1 & 2)	Implementation of Management (Week- 3 to 14)	Outcome (Week- 15 to 22)
Individual - Low bladder functioning, - Deep sleep, - Premature baby, - Lack of interest to go to toilet, - Speech & walking delay, - Low self-esteem, - Irresponsible, - Stubbornness, Interpersonal - Multiple interaction for solving enuresis, - Poor toilet training, Contextual - Uncommon issue in family, - Unreal expectation about bladder control, - Unplanned reinforcement for it, - Low parental self-confidence.	(i) To recover diurnal enuresis.	Frequency 3 times in Aa (week-1), 3 times in Ab(week-2)	- Psychoeducation, - Creative therapy, - Scheduled waking, - Cleanliness and - Rewards System, - Retention Control Training.	Frequency 0 in A1 (week-16), - A2 (week-16 to18), - A3 (week-19 to 22).
		Subjective rating (0-100)* P1- 60 Parent-80		Subjective rating (0-100)* - P1- 0 - Parent-0
	(ii) To reduce nocturnal enuresis.	Frequency Both day & nighttime, total 10 times in Aa (week-1), total 11 times in Ab (week-2).	- Psychoeducation, - Creative therapy, - Scheduled waking, - Cleanliness and - Rewards System, - Retention Control Training, - Over-learning, - Dry bed training.	Frequency 1 in A1 (week-16), 0 in A2(week-17 to 18) 1 in A3 (week-19 to 22).
		Subjective rating (0-100)* P1- 70 Parent-100		Subjective rating (0-100)* - P1- 0 - Parent-0
	(iii) To overcome stubborn behavior.	Subjective rating (0-100)* P1- 60 Parent-80	- Star chart and - Rewards System, - Problem-solving skills (A-B-C).	Subjective rating (0-100)* - P1- 0 - Parent-0
	(iv) To motivate towards her studies for trying to achieve better marks.	Subject (in 100) Bangla-16 English-04	- Star chart and - Rewards System, - Problem-solving skills (when and then rules, pros and cons).	Subject (in 100) - Bangl-64 - English-46
		Subjective rating (0-100)* P1- 70 Parent-80		Subjective rating (0-100)* - P1- 0 - Parent-10

*here, 0 =no problem and 100= worst condition of the problem

For motivating her towards study to achieving better marks in exam, star chart and rewards system were also used for reinforcing to pay attention on her regular curriculum, problem-solving skills especially when and then rules, pros and cons were applied for changing her dysfunctional thoughts. The out comes of these management show that 10% problem was persistent now and her half yearly

examination in Bangla (64) and English (46) where baseline data were 16 in Bangla and only 4 in English.

PI and her parent were motivated to attend the treatment session, which helped the therapy session and within few sessions, she was able to reduce her problem gradually. It was assumed that if she practiced all of procedure which she learn in treatment session then she will be overcome both nocturnal and diurnal problem as well as other problems. Therefore, it was established that only psychological management was able to reduce PI's nocturnal enuresis problem.

: Case P2:

How the case was referred:

Case P2 is a five and half year old boy born on 6th November 2002. P2's father contacted the current researcher from an advertisement in the newspaper asking for patients with bed wetting problem for a research purpose. After the current researcher interviewed P2's father regarding P2's problem over the phone, he was asked to bring the child to the researcher for further treatment. P2's father made an appointment to bring his child to BSMMU Paediatrics Nephrology Department where the doctor there diagnosed P2 with nocturnal enuresis. He was then referred to the current researcher for psychological management.

Description of the problem:

P2 and his father came to the current researcher for his nocturnal enuresis problem. He usually wets his bed 4-5 times a week. During the in depth interview while the patient was being assessed other problems were discovered by the present researcher.

- 1 **Physiological:** P2 sometimes have constipation because he only likes to eat meat and other fried foods and he usually sleeps very deeply.
- 2 **Emotional:** His parent stated that he has a fear of toilet during night.
- 3 **Behaviour:** P2 has a habit of biting his nails, especially when he is feeling nervous.

History of the problem:

Since birth P2 used to urinate on his bed during the night. At first he used to wet his bed every night and since the last three years it has been reduced to 4-5 times a week. Sometimes on cold or rainy days he wets his bed once or twice.

Relevant background information:

The following information is related with the problem of P2:

1. Personal factor: Following factors contributed his enuresis problems.

- **Birth** – During the time of pregnancy, P2's mother suffered from fever and depression. P2's mother had a c-section 37 days before his due date because he had an injury from falling down from the stairs. When doctors operated her they found a

tumour in her uterus. P2 was born a small baby and his birth weight was 2.5 kg. He currently is still underweight and short for his age group.

- **Development-** Although P2 was a premature child but his development was normal. His intellectual development is above average. He is also very curious always eager to learn new things.
- **Temperament** - P2 was an undemanding and responsible boy since childhood. He is very friendly with people and likes to spend most of his time outside the house. He is sensitive towards his living conditions and does not like to talk about it. He was quite anxious about parental relationship.
- **Medical** – P2 is healthy and does get ill very often. However, sometimes he suffers from fever and gastrointestinal problems due to his habit of eating out often.
- **Academic history-** P2 likes attending school and usually gets good results in his studies. For example, he obtained 7th place out of 35 students in the last term. His favourite subject is social studies and received 48 out of 50 and his least favourite subject is drawing where he received 30 out of 50. Other than academics he likes to read fictional stories and poetry.
- **Social** – P2 is a very social child and likes to play with his cousin at home and with his friends at school.

2. Contextual factor: Following factors contributed to his enuresis problems.

- **Family environment** – P2's father is a 42 years old businessman and his mother is a 30 years old housewife. Both parent only completed S.S.C level in their education. P2 is an only child and lives with his parent in a flat in P2's grandfather's building. P2 spends most of his time at home with his dad because P2's mother lives mostly at his father's house since P2's birth. P2 has other uncles and aunts from his father's side who live in the same building. They are all supportive to him but during the daytime since they all have jobs and P2's father also have to spend time out of the house for his business, P2 mostly spends his time at home after school on his own. Since P2's mother does not live with him regularly and his father is also a busy man, so, most of the time, they deal with his problem inconsistently.
- **Parental relationship** – P2's parents does not have a good relationship and sometimes even argues and fights in front of him. Whenever P2's mother instructs P2 to do something mostly his dad would instruct him to do the opposite.
- **Attachment with parent** – P2 is closer with his father because since he was

baby his mother would not sleep with him due to his enuresis problem. When creative therapy heart string exercise was used on P2, where he drew a series of evenly spaced circles, one inside the other, in the centre of the smallest circle drew like a heart shape and he wrote his name inside it. Then it was explained to P2 that the names of the people who were most important to him were to be written in the next circle closest to the heart and then other people who were not quite so close go in the next circle, and so on. P2 claimed that in his inner heart is one of his cousin and he liked to stands his father at the second position and his mother at the fourth position in heart string. He explained that he does not like whenever his father says bad remarks regarding P2's mother, so he choose his father in second place instead of first. For the creative therapy pit a U shaped rope was drawn and P2 was asked to imagine those people who would pull him out of the pit. When the exercise was used on P2 to see his imagination about the people who would help him when he felt he had no hope and he said that his father and his aunt would be the only people who would help him if he fell into a pit.

- **Toilet training** – P2's mother verbally and physically abuses him for his enuresis problem and never took any other steps to help him overcome this issue. Sometimes if P2's father woke from his sleep he would try to take P2 to the toilet to prevent bed-wetting. P2 never received proper toilet training and he usually is told to drink milk before he goes to bed, which made the enuresis problem worse.

Session Conduction:

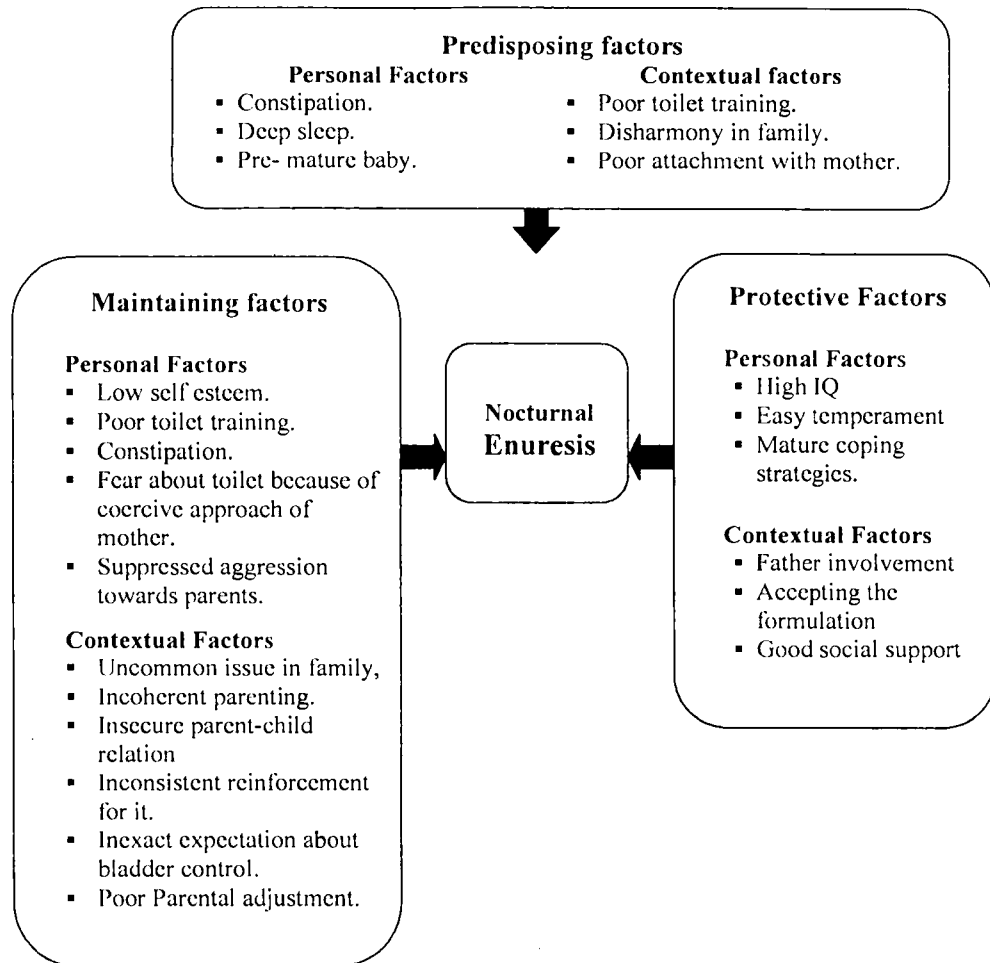
A total of 11 sessions were done with P2. These 11 sessions were done within 15 week. Time of these sessions were divided in three categories, first-baseline Aa (week-1) and Ab (week-2); second-intervention B1 (week-3), B2 (week-4), B3 (week-5) and B4 (week-6), B5 (week-8) and third- outcome A1 (week-10), A2 (week-12) and A3 (week-16). The appearance, behavior and emotional reaction of P2 and his parents were observed in every session, which helped with the assessment and treatment.

Shared Formulation:

Formulation is used to determine what the predisposing causes of his problem are and which factors contributed in maintaining his enuresis problem. The potential factors that can help P2 overcome his problem were discussed. It was described to P2 and his

parents about his problem on this model. The detailed formulation is presented in the Figure: 3.4.

Figure: 3.4: Formulation of the case P 2



Through this Figure 3.4, it was discovered that the predisposing factors were constipation, disharmony in family, poor attachment with mother, lack of toilet training, as well as deep sleep. The maintaining factors were, poor toilet training, fear about toilet because of coercive approach by the mother, suppressed aggression towards parents for their adjustment problem and incoherent parenting, insecure parent-child relation, inconsistent reinforcement for it, inexact expectation about bladder control, poor parental adjustment. Also, since none of the family members were educated on this issue, P2's problems were due to the above predisposing factors. The potential factors that contributed towards a good prognosis were high IQ, easy temperament, mature coping style, father involvement and good social support.

Management Goal:

In the first two sessions, assessment of the problems and its impact in different areas were done. After that the management goals were set collaboratively with P2 and his parent. It was decided that

- ❑ To reduce nocturnal enuresis,
- ❑ To try to overcome P2's fear of toilet,
- ❑ To reduce P2's parental conflict,
- ❑ To reduce the distance between P2 and his mother,
- ❑ To reduce nail biting habit,
- ❑ To change his food habit to prevent his constipation.

Management Plan:

The researcher was planning the following management strategies on the basis of P2's personal and environmental resources for the fulfilment of above mentioned goals. During baseline assessment session, it would be revealed that P2 has above average IQ and he was eager to learn new things, so this would be more appropriate for him.

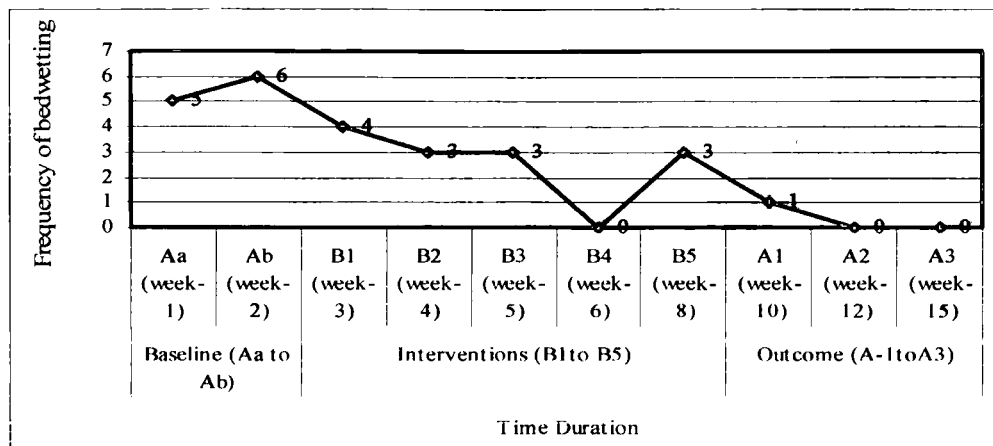
Table-3.3: Rational of Management Plan for P2.

Management Strategies	Purpose of selecting
(i)Psychocducation:	For providing knowledge about bladder functioning, maternal deprivation and healthy as well as fibber food.
(ii)Schedule awakening:	For build up habit to visit toilet after certain times.
(iii)Cleanliness training :	For develop self-responsibility
(iv)Reward System :	For encourage him to involve in therapeutic process.
(v)Fluid Restriction :	For changing the habit of taking excessive of water in evening and take milk before go to bed.
(vi)Retention control training :	For developing ability to hold his urine for certain time.
(vii)Over learning training:	For developing capacity to hold extra fluid at night time.
(viii)Systematic desensitisation:	For reducing fear of toilet and make a habit of using toilet owns self.
(ix) Habit reversal training:	For put off P2's nail biting habit and replaces it with a more sensible habit
(x) Problem solving approaches:	For reducing conflicts between P2's parents

Outcome of Management:

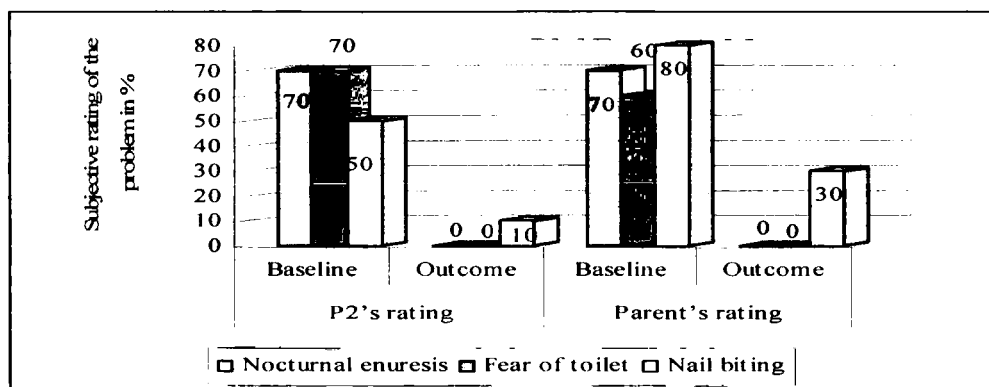
P2 successfully maintained his progress. Over all improvement on nocturnal enuresis is presented in Figure- 3.5. The Figure-3.5 shows that the frequency of nocturnal enuresis was high on baseline assessment sessions and it gradually decreased, when intervention was implemented. Within six weeks, it was 0. But it was increased in eight week and it gradually decreased over further sessions.

Figure-3.5: P2's Journey of overcoming Enuresis.



P2 has also overcome his fear of toilet and nail biting. Last month he only did four times biting his nail. The subjective ratings of P2's problems are presented in the

Figure-3.6: Achievement of the treatment goal of P2's problem through subjective rating.



The Figure-3.6 indicates that in initial session the subjective ratings of P2's problems were varied between P2 and his parent. But in the follow up session, when outcome were measured, the problem rating were quite same.

Case Summary:

P2's case summary is presented in Table-3.4, where nature of the enuresis, contributing factors, treatment goal, baseline, and implementation of management and outcome of the management are discussed. This Table also disclose that P2 has nocturnal enuresis, where contributing individual factors were constipation, deep sleep, suppressed aggression towards parents, fear of toilet for rush toileting, and low self-esteem. For this problem, contributing interpersonal factors were implementing multiple approaches for enuresis, poor toilet training, inconsistent parenting, poor attachment with mother and poor parental adjustment; and contributing contextual factors were low parental self-efficacy, uncommon problem in family, so they could not handle it efficiently, inconsistent reinforcement applied for enuresis management and unreal expectation of his parents about bladder control.

The Table 3.4 also reveal that six treatment goals were set with P2 and his parent for achieving first goal which was to reduce nocturnal enuresis. For this psychoeducation, fluid restriction, schedule wakening, cleanliness and reward system, retention control, over learning training were applied. Through these interventions, P2 gradually overcame his enuresis problem. In baseline assessment session Aa (week1) and Ab (Week 2), he did wet 5 times in week and he was able to overcome this problem within 10 weeks. So, 98.18% improvement was found in the last treatment session A1 (from week 8 to 10). 100% improvement was found in the 1st follow up session A2 (from week 10 to12) and the final follow up session A3 (from week 12 to 15).

For overcoming toilet related fear, systematic desensitization and relaxation were used. Through this intervention, P2 gradually overcame his problem. In baseline assessment sessions, P2 and his parent rating this problem in 100 point scale, P2 and his parent rate the problem as 70%, where 100 means worst condition and 0 means best condition and he was successfully manage this problem with in four weeks and out come measurement session both P2 and his parent rated it as 0%.

For reducing parental conflict, problem-solving skill was used in order to achieve fourth goal. Consequences of this treatment are that his parents try to manage their conflict in a peaceful way than before.

Table-3.4: Summary impression of P2.

Types of Enuresis: Primary Nocturnal Enuresis				
Contributing Factors	Treatment Goal	Baseline Data (Week- 1 & 2)	Implementation of Management (Week- 3 to 8)	Outcome (Week- 10 to 15)
Individual ▪ Premature birth, ▪ Constipation, ▪ Deep sleep, ▪ Low self-esteem, ▪ Suppressed aggression, ▪ Fear of toilet. Interpersonal ▪ Poor toilet training, ▪ Poor attachment with mother, ▪ Multiple approach for solve enuresis, ▪ Inconsistent parenting, ▪ Poor parental adjustment Contextual ▪ High family stress, ▪ Uncommon issue in family, ▪ Unreal expectation about bladder control, ▪ Inconsistent reinforcement for it. ▪ Low parental self-confidence.	(i) To reduce nocturnal enuresis.	Frequency ▪ 5 times in Aa (week-1), ▪ 6 times in Ab (week-2).	▪ Psychoeducation, ▪ Fluid restriction, ▪ Scheduled wakening, ▪ Cleanliness and Rewards System, ▪ Retention Control Training, ▪ Over-learning training.	Frequency ▪ 1 in A1 (week-10), ▪ 0 in A2 (week-11 to 12), ▪ 0 in A3 (week-13 to 16).
		Subjective rating (0-100)* ▪ P2- 70 ▪ Parent-60		Subjective rating (0-100)* ▪ P2- 0 ▪ Parent-0
	(ii) To overcome fear of toilet	Subjective rating (0-100)* ▪ P2- 70 ▪ Parent-70	▪ Systematic desensitization ▪ Relaxation	Subjective rating (0-100)* ▪ P2- 0 ▪ Parent-0
	(iii) To reduce parental conflict	More conflict in front of P2	▪ Problem solving skill	▪ Less conflict than before
	(iv) To reduce the distance between P2 and his mother	▪ Poor attachment with mom.	▪ Psychoeducation about maternal deprivation and the role of attachment with mother.	▪ More attached than before
	(v) To reduce nail biting habit	Subjective rating (0-100)* ▪ P2-50 ▪ Parent-80	▪ Star chart and Rewards System, ▪ Habit reversal training	Subjective rating (0-100)* ▪ P2-10 ▪ Parent-30
	(vi) To prevent constipation	▪ Did not eat fiber diet	▪ Psychoeducation about the importance of fiber and healthy diet on health.	▪ Little bit takes fiber diet.

*here, 0 =no problem and 100= worst condition of the problem

In Table-3.4, the fourth goal, psychoeducation about the role of parental attachment and its impact on child was described to his parents for improving the quality of attachment with P2. The outcome of this consultation was that his mother was more attached with him.

For reducing his nail biting habit, star chart and rewards system, habit reversal training, pros and cons and relaxation were applied for reaching third treatment goal. Out comes of the treatment show only 10% problem, where the baseline was 50% problems.

The final goal, psychoeducation about fiber diet was provided for preventing constipation. The consequence was that P2 had tried to change his food habit. Besides this, P2 and his parent were motivated to attend the treatment session, which helped the therapy, for which, he could be able to reduce his problem gradually. It further implicate that if his parents would manage their problems, he also could overcome his inferiority.

It was assumed that if he practiced all of the procedures which he learned in treatment session then he would be able to overcome his nocturnal enuresis problem as well as other problems. Therefore, it was established that only psychological management was able to reduce P2's nocturnal enuresis problem.

: Case-P3:

How the case was referred:

P3 is an eight year and eleven months old girl born on 8th October 2000. P3's father contacted the current researcher from an advertisement in the newspaper asking for patients with bed wetting problem for a research purpose. After the current researcher interviewed P3's father regarding P3's problem over the phone, he was asked to bring the case to the researcher for further treatment. P3's father made an appointment to bring the child to BSMMU Paediatrics Nephrology Department, where the doctor there diagnosed P3 with nocturnal enuresis. She was then referred to the current researcher for psychological management.

Description of the problem:

P3 and her parents came to the current researcher for her nocturnal enuresis problem that occurred mostly on every night. During the in depth interview while the patient was being assessed, other problems were also discovered by the present researcher.

1. **Physiological:** P3 is an obese child who weighs 35 kg instead of the normal weight of 25 kg for her height. She also sometimes suffers from urine infection and she usually sleeps very deeply.
2. **Emotional:** P3 has a very short temper and jealousy feelings towards her older brother. She has a fear of bathrooms and darkness.
3. **Behavior:** P3 is a very stubborn child. She always behaves in a nagging manner and cries easily for no reason.
4. **Social:** She could not maintain relationship.

History of the problem:

Since birth P3 used to urinate on her bed during the night. However, when she had urine infection and had to drink more water, her bed wetting increased. Also, whenever she became angry with someone and had to go to bed, her bed-wetting then increased.

Relevant background information:

The following information was related with the problem of P3:

1. Personal factor: Following factors contributed her enuresis problem.

- **Birth-** While P3's mother was pregnant with her; she developed a fear of death and used to worry a lot about what would happen with her son if she dies. P3 was a caesarean baby because the umbilical cord became wrapped around her neck at the end of the pregnancy. She was born on the normal due date and weighed 8.5 lbs.
- **Development-** P3 was developed normally according to her age. She was found to have the capability to understand everything quickly.
- **Temperament-** P3 was always a stubborn and jealous child. She preferred to be carried around and liked staying in other people's lap. She would start crying if anyone refused to carry her. However, she was very self dependent and sincere towards her duties.
- **Medical-** P3 used to suffer once or twice a year from urine infection and consulted many doctors for this. At the age of two she became ill with typhoid.
- **Academic performance-** P3 is now attending class three. She is a bright student and usually is in the top three positions in her class. In the last term she was in the first place in her class. P3 can sing and draw nicely and her teachers also appreciate her a lot for this talent.
- **Social-** P3 has always been a very social child. She can make friends easily but cannot keep the relationship for a long time. She has good relation with her extended family but recently she feels a little shy being with them. She cannot want to stay outside of her home for her bed-wetting problem.

2. Contextual factors: Following factors contributed her enuresis problems.

- **Family environment-** P3 is part of a solvent single family. Her father is a 45 years old businessman and has completed BA honours. Her mother is a 35 years old housewife and completed HSC level education, and she also had a history of enuresis. She has a brother who is two years older than her. P3's parents' first child was a girl who died at the age of three and half years old from pneumonia. Ever since that incident, P3's parents became overprotective and overindulgent with her. She has a good relationship with her family but her father and her brother always teases her for her enuresis problem. Both parents usually talk about her problem with other guests which she dislikes very much.

- **Parental relationship-** P3's parents have a very good understanding relationship and they are very supportive with each other. However, P3's mother is impatient type of person and usually wanted P3's problem solved quickly.
- **Attachment with parents** – Both P3's parents love her dearly and she is more attached with her mother than her father.
- **Toilet training-** Since P3's mother is impatient; she did not provide proper toilet training. She tried various types of methods to solve P3's enuresis problem such as various religious rituals, medicines and even fluid restriction. When all of these attempts failed, P3's mother started to feel guilty and thought P3 has this problem because she herself used to have the same issue.

Session Conduction:

A total of 9 sessions were done with P3 within 14 week. Time of these sessions were divided in three categories, first-baseline Aa (week-1) and Ab (week-2); second-intervention B1 (week-3), B2 (week-4), B3 (week-7) and third- outcome A1 (week-9), A2 (week-11) and A3 (week-14). The appearance, behavior and emotional reaction of P3 and his parent were observed in every session, which helped with the assessment and treatment.

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Shared Formulation:

Formulation is used to determine what the predisposing causes of her problem are and which factors contributed in maintaining her enuresis problem. The potential factors that can help P3 overcome her problem were discussed. It was described to P3 and her parent about her problem by this model. The detailed formulation is presented in the figure: 3.7, where it was discovered that the predisposing factors were urinary track infection, positive history in family, deep sleep and poor toilet training practice. The maintaining factors were immature coping strategy, urinary track infection and poor toilet training, fear of toilet, obesity, over protective and over indulgent parenting, inconsistent reinforcement for problem behaviours, and unclear expectation about bladder control. P3's problems were due to the above predisposing factors. The potential factors that contributed towards a good prognosis were high IQ, high self-esteem, secure parent-child attachment, positive educational placement and good social support.

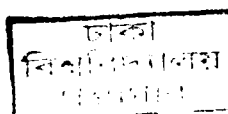
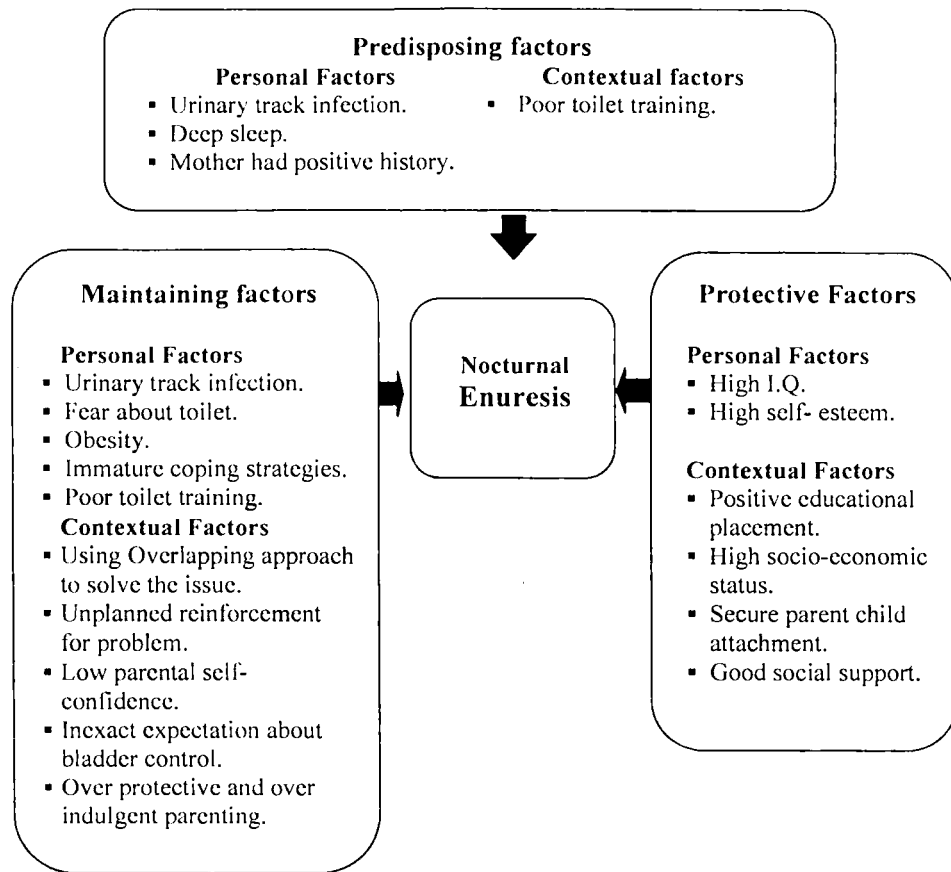


Figure: 3.7: Formulation of the case of P 3



Management Goal:

In the first two sessions, assessment of the problems and their impact on different areas were done. After that the goals of management were set collaboratively with P3 and her parent. It was decided that the goal of treatment would be-

- ❑ To reduce nocturnal enuresis,
- ❑ To overcome fear of toilet,
- ❑ To try to modify her behavior problem such as nagging, stubborn behavior,
- ❑ To build up awareness about urinary track infection.

Management Plan:

The researcher was planning the following management strategies on the basis of P3's personal and environmental resources for the fulfilment of above mentioned goals. During baseline assessment session, it would be revealed that P3 has above

average IQ and she was eager to learn new things, but her parents was not so psychological oriented person, so this would be more appropriate for her.

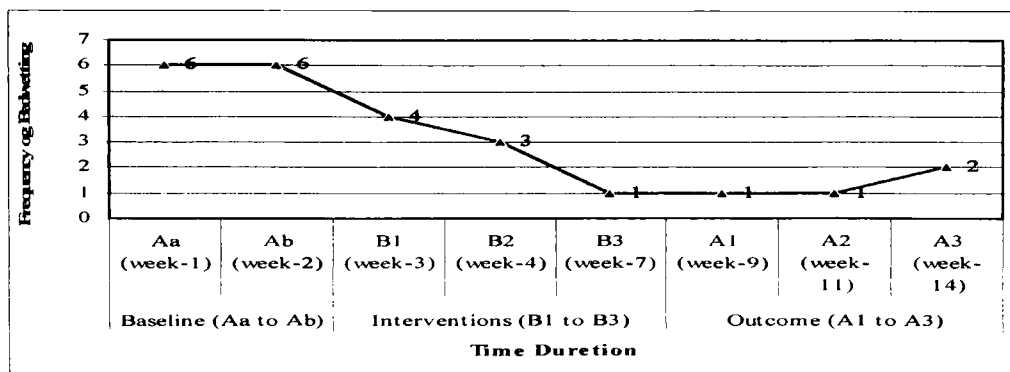
Table-3.5: Rational of Management Plan for P3

Management Strategies	Purpose of selecting
(i)Psychoeducation:	For providing knowledge about bladder functioning, urinary track infection and healthy life style as well obesity.
(ii) Dry bed training:	With in short time, for build up habit to visit toilet after certain times and develop responsibility and achieving hold urine.
(iv)Reward System :	For encourage her to involve in therapeutic process.
(vii)Over learning training:	For developing capacity to hold extra fluid at night time.
(viii)Systematic desensitisation:	For reducing fear of toilet and make a habit of using toilet owns self.
(ix) Problem solving approaches: -when and then rules, -pros and cons	For modifying her stubborn behaviour and nagging behavior
(x) Role Play :	For practicing and realising the actual situation when she behave nagging and stubborn

Outcome of Management:

P3 successfully maintained her progress. She had wet her bed only two times on the last follow-up session (A3) for her urinary track infection problem. Over all improvement on nocturnal enuresis is presented in Figure- 3.8. The Figure-3.5 shows that the frequency of nocturnal enuresis was high on baseline assessment sessions and it gradually decreased, when intervention was implemented. Within five weeks, she wet her bed only 1 time.

Figure-3.8: P3's Journey of overcoming Enuresis

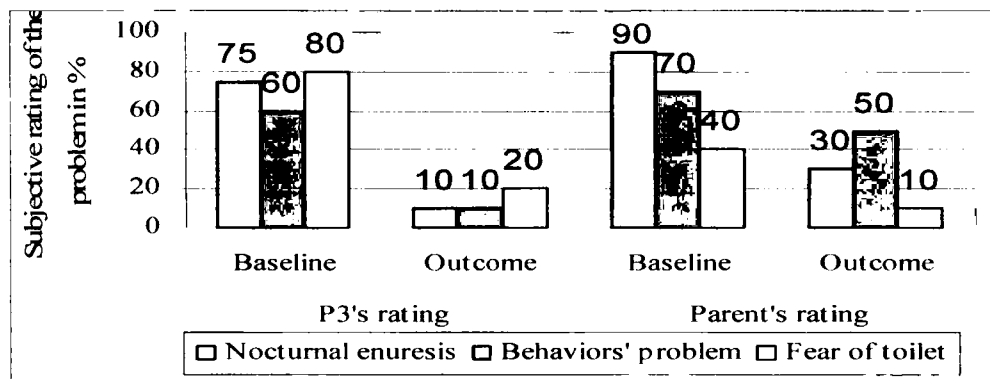


The Figure-3.8 shows that the frequency of nocturnal enuresis was high on initial

sessions but when treatment was started gradually it was decreased from session to session. The progress was maintained over all the sessions.

P3 also demonstrated success in comparatively decreasing her problem behavior but these changes was not so visible. The subjective ratings of P3's problems are presented in the Figure-3.9.

Figure-3.9: Achievement of the treatment goal of P3's problem through subjective ratings by P3 and her parent.



The Figure-3.9 indicates that the subjective ratings of P3 problems on baseline and outcome session were varying from P3 and her parent. Most of the time, these ratings became low that indicated the problem is decreased.

Case Summary:

P3 case summary is presented in Table-3.6, where nature of the enuresis, contributing factors, treatment goal, baseline, and implementation of management and outcome of the management are discussed. The table also disclose that P3 has primary nocturnal enuresis, where contributing individual factors were urinary track infections, deep sleep, stubbornness, fear of toilet for infection; mother had positive history of enuresis and obesity. The contributing interpersonal factors of this problem were inconsistent approaches implement with her for enuresis, poor toilet training, over protective and over indulgent parenting, negative parental attitudes and contributing contextual factors were low parental self efficacy, inconsistent reinforcement applied for it and moreover unreal expectation of her parent about bladder control.

The Table 3.6 also reveal that four treatment goals were set with P3 and her parent for achieving first goal which was to reduce nocturnal enuresis. For this reason, psychoeducation, dry bed training and over learning training were applied. Through these interventions, P3 gradually reduced her enuresis problem. In baseline assessment session Aa (week1) and Ab (Week 2), she did wet 6 times in week and she was not totally able to overcome this problem, but within 7 weeks she maintained her progress. So, 99.92 % improvement was found in the last treatment session A1 (from week 7 to 9). 99 % improvement was found in the 1st follow up session A2 (from week 7 to 9) and the final follow up session A3 (from week 11 to 14).

For achieving second goal, systematic desensitisation and relaxation was used for overcoming fear in toilet. In baseline assessment session, P3 rate her fear as 80%, but through these treatments, this problem was 20%. That indicated 75% improvement.

The table 3.6 also demonstrates that for reducing problem behaviors such as nagging, stubborn behavior, problem solving approaches (when and then rules,' pros and cons), role play and rewards system were applied for reaching third treatment goal. The table show that in baseline session, P3 rated her behaviors problems as 60%, but in outcome measurement session, P3 rated 10% problem; which indicated 83.33% improvement.

The fourth goal, psychoeducation about water intake, role of water as well as function of kidney and prevalence rate of enuresis among the patient of urinary track infection were providing. The consequence was that P3 had tried to change her water habit.

Besides this, P3 own self was motivated to attend the treatment session, which helped the therapy, for which she could be able to reduce her problem behaviors gradually. If both of her parents were equally involved in each and every therapy session then the outcome of this psychological management did better than present outcome. Further more, it was assumed that if she practiced all of the procedures which she learned in treatment session then she would be able to overcome her nocturnal enuresis problem as well as other problems. Therefore, it was established that only psychological management was able to reduce P3's nocturnal enuresis problem which she had suffered since long-time.

Table-3.6: Summary impression of P3

Types of Enuresis: Primary Nocturnal Enuresis				
Contributing Factors	Treatment Goal	Baseline Data (Week- 1 & 2)	Implementation of Management (Week- 3 to 7)	Outcome (Week- 8 to 14)
Individual ▪ Urinary track infection (UTI). ▪ Fear of toilet. ▪ Deep sleep. ▪ Positive family history of enuresis. ▪ Stubbornness. Interpersonal ▪ Poor toilet training. ▪ Negative parental attitude towards enuresis. ▪ Overlapping approach for solving enuresis. Contextual ▪ Unreal expectation about bladder control, ▪ Inconsistent reinforcement for it. ▪ Low parental self- confidence.	(i)To reduce nocturnal enuresis.	Frequency ▪ 6 times in Aa (week-1), ▪ 6 times in Ab (week-2).	▪ Psychoeducation, ▪ Rewards System, ▪ Dry bed Training, ▪ Over-learning training.	Frequency ▪ 1 in A1(week-8 to 9), ▪ 1 in A2 (week- 10 to 11), ▪ 2 in A3 (week-12 to 14).
		Subjective rating(0-100)* ▪ P3- 75 ▪ Parent-90		Subjective rating(0-100)* ▪ P3- 10 ▪ Parent-30
	(ii)To overcome fear of toilet	Subjective rating(0-100)* ▪ P3- 80 ▪ Parent-40	▪ Systematic desensitisation ▪ Relaxation	Subjective rating(0-100)* ▪ P3- 20 ▪ Parent-10
	(iii)To modify problem behaviors	Subjective rating(0-100)* ▪ P3- 60 ▪ Parent-70	▪ Problem solving skill -when and then rules, -pros and cons	Subjective rating(0-100)* ▪ P3- 10 ▪ Parent-50
	(vi) To prevent Urinary track infection	▪ Did not take sufficient amount of water.	▪ Psychoeducation about the importance of water intake, role of water on health.	▪ P3 now change her water intake habit.

*here, 0 =no problem and 100= worst condition of the problem

: Case – P4:

How the case was referred:

The Case P4 is a ten years and 10 months' old boy born on 21st November 1997. P4's father contacted the current researcher after seeing an advertisement in the newspaper asking for patients suffering from bed wetting problem for a research purpose. After the current researcher interviewed P4's father regarding P4's problem over the phone, he was asked to bring the child to the researcher for further assessment. P4's father made an appointment to bring his child to Paediatrics Department of Dhaka Community Hospital, where the doctor there diagnosed P4 with primary nocturnal enuresis. He was then referred to the current researcher for psychological management.

Description of the problem:

P4 and his father came to the current researcher for his bed-wetting problem. He usually used to wet his bed every day in a week. During the in depth interview while the patient was being assessed, other problems were found by the present researcher.

1. **Physiological:** P4 also sometimes suffers from urine infection and paediatrician said that his bladder has contained low volume. His parent complained that he generally takes very little water as drink.

2. **Emotional:** P4 was found suffering from inferiority complex, low mood and anxiety related tension.

3. **Behaviour:** During daytime P4 demonstrated a habit of going to toilet in a very short duration.

4. **Social:** His parent stated that P4 avoided social gathering and refused to visit and stay at relative's home.

History of the problem:

Since birth P4 used to urinate on his bed during the night. He used to wet his bed once in every night. Sometimes on cold or rainy days, he used to wet his bed twice.

Relevant background information:

The following information is related with the problem of P4:

1. Personal factor: Following factors contributed his enuresis problem.

- **Prenatal and perinatal** – While P4's mother was pregnant with him, he had not suffering any serious problem and P4 was born in due time by normal delivery. P6's birth was 3.5 kg.
- **Development-** P4 developed normally according to his age and he is of average intelligence.
- **Temperament** - P4 was a responsible boy since childhood. He is introvert and most of the time he play with his youngest brother. He is sensitive towards his present problem and does not like to talk about it. He was quite anxious about parental relationship.
- **Medical** – P4 suffering urine infection year for last five years and has seen many doctors for this.
- **Academic history-** P4 usually does average results in his studies. His favourite subjects are Science and mathematics, where he received 88 and 80 out of 100. English is his least favourite subject, where he received 60 out of 100. He was very quiet at school and did not attend his school regularly because of one of his cousin. The cousin used to study in the same class in his school and the cousin told about his bedwetting problem to other classmates. P4 has a history of changing different schools for migration.
- **Social** – P4 is not very social child and likes to stay alone at school. He experienced criticism and was bullied by his classmates, family members and other relatives about his bedwetting problem.

2. Contextual factor: Following factors contributed his enuresis problems.

- **Family environment** – P4 is part of a solvent single family. His father is a 37 years old businessman and has completed BA in his studies and he also has a history of enuresis when he was 9 years' old. His mother is a 29 years old housewife and completed Dakhil in her education. P4's mother have to spend time for household activities and entertained guest and his father also have to spend time out of the house for his business, that's why, the parental supervision is inconsistent. Both parents

usually talks about his enuresis problem with their family guests, which he dislikes very much. He has a brother who is six years younger than him. He has a good relationship with his parents but his younger brother and other relatives always teased him for his enuresis problem.

- **Parental relationship** – At present, P4's parent does not have a good relationship for migration and sometimes even argues in front of both brothers. Whenever P4's parents clash with each other then P4 tried to fulfil his demand.
- **Attachment with parent** – P4 likes to spend time with his father but when creative therapy 'Heart String' exercise was used on P4, he claimed that in his inner heart is his mom, in second place is his father, third place is his brother.
- **Toilet training** – Neither of P4's parents provided sufficient toilet training for him because they thought that as he gets older he would overcome his bed wetting problem on his own. At present, P4's mother verbally and physically abuses him for his enuresis problem and never took any other steps to help him overcome this issue. When P4's mother stopped him from taking water during night he then suffered from urine infection.

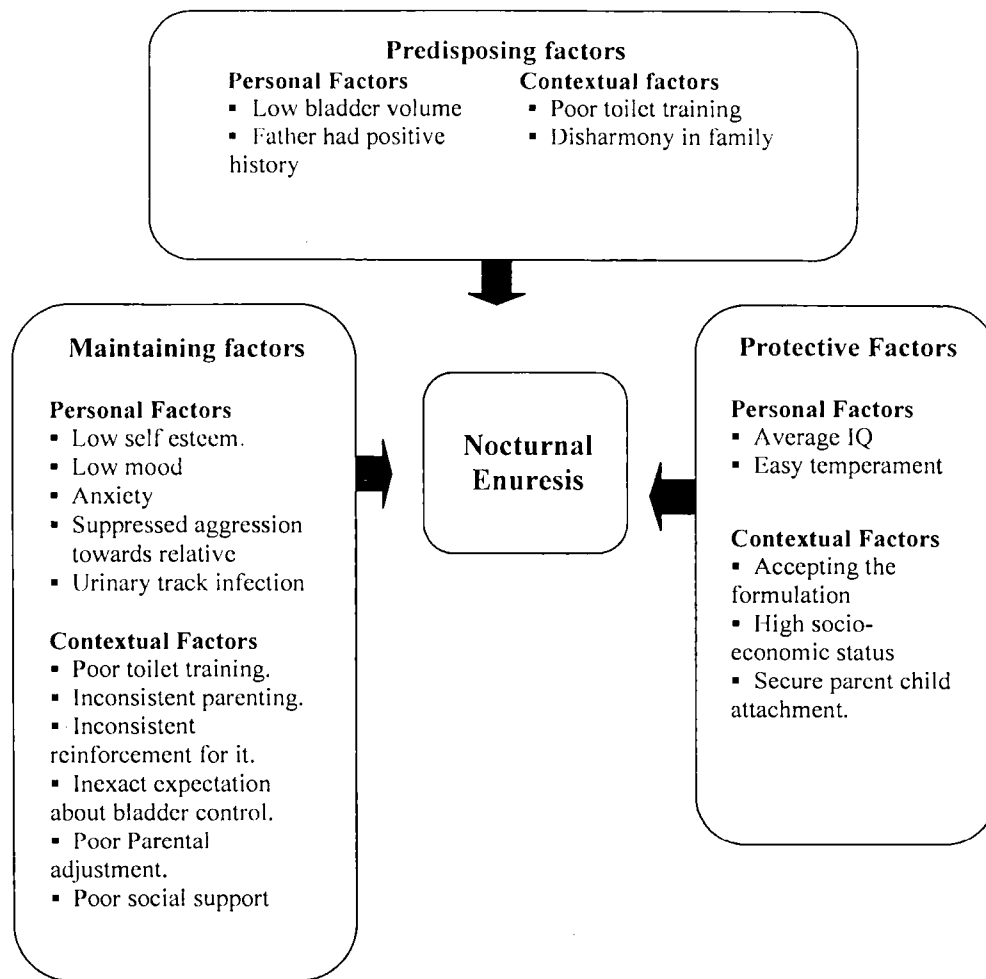
Session conduction:

A total of 9 sessions were done with P4. These 9 sessions were done within 10 weeks. Time of these sessions were divided in three categories, first-baseline Aa (week-1) and Ab (week-2); second-intervention B1 (week-3), B2 (week-4), B3 (week-5) and B4 (week-6) and third- outcome A1 (week-7) and A2 (week-10). The appearance, behavior and emotional reaction of P2 and his parents were observed in every session, which helped with the assessment and treatment.

Shared Formulation:

Formulation is used to determine what the predisposing factors of his problem are and which factors contributed in maintaining his enuresis problem. The potential factors that can help P4 overcome his problem were discussed. It was described to P4 and his parents about his problem on this model. The detailed formulation is presented in the Figure: 3.10.

Figure: 3.10: Formulation of the case of P4



Through the above Figure 3.10, it was discovered that his personal predisposing factors were low bladder volume, and positive enuresis history in family and contextual predisposing factors were poor toilet training, familial disharmony. The maintaining factors were low mood, low self esteem, urinary track infection, and suppressed aggression towards relatives, poor toilet training, inconsistent parenting and incoherent reinforcement, inexact expectation about bladder control, poor parental adjustment. P4's problems were maintained for above mentioned factors. The potential factors that contributed towards a good prognosis were average IQ, easy temperament and accepting formulation, high socio-economic status and secure parent child adjustment.

Management Goal:

In the first two sessions, assessment of the problems and its impact in different areas were done. After that the management goals were set collaboratively with P4 and his parent. It was decided that

- ❑ To reduce nocturnal enuresis,
- ❑ To overcome low mood,
- ❑ To try to overcome P4's social avoidance behaviour
- ❑ To motivate to attend his school.
- ❑ To prevent urinary track infection.
- ❑ To reduce anxiety.
- ❑ To try to reduce parental conflict.

Management Plan:

The researcher planning the following management strategies on the basis of P4's personal and environmental resources for the fulfilment above mentioned goals. During baseline assessment session, it would be revealed that P4 has average IQ and his parent were not so eager to attend long sessions, so the table-3.7 would be more appropriate for him.

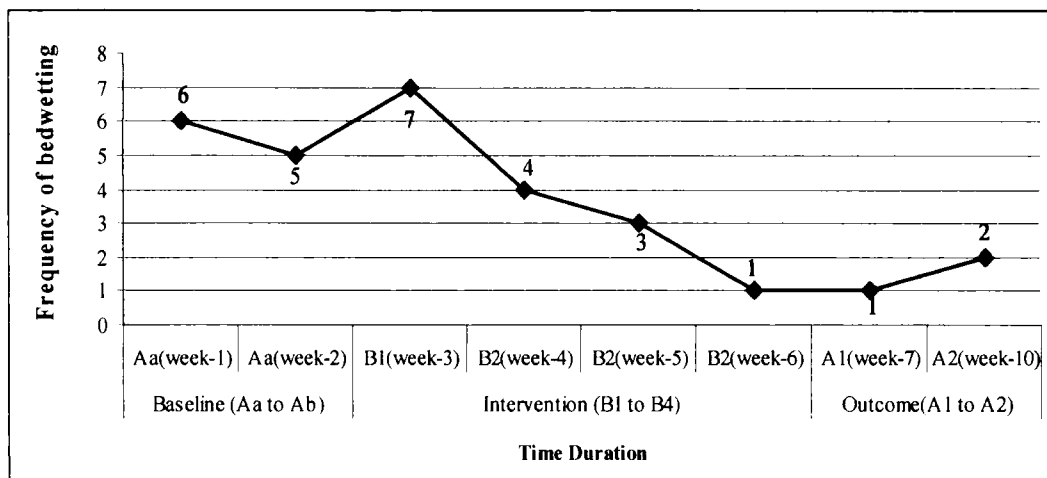
Table-3.7: Rational of Management Plan for P4

Management Strategies	Purpose of selecting
(i) Psychoeducation:	For providing knowledge about bladder functioning, urinary track infection and fluid consumptions.
(ii) Dry bed training:	With in short time, for build up habit to visit toilet after certain times and develop responsibility and achieving hold urine.
(iii) Schedule awakening:	For build up habit to visit toilet after certain times.
(iv) Cleanliness training :	For develop self-responsibility
(v) Reward System :	For encourage him to involve in therapeutic process.
(vi) Retention control training :	For developing ability to hold his urine for certain time.
(vii) Over learning training:	For developing capacity to hold extra fluid at night time.
(viii) Focusing positive:	For changing negative mood through paying attention towards positive incidents.
(ix) Social skill training and role play	For acquiring social skill to reduce social and school avoidance.
(x) Relaxation:	For reducing anxiety symptom through imagery relaxation.
(xi) Problem solving approaches:	For reducing conflicts between P4's parents.

Outcome of Management:

It was reported that within twenty days P4 had two occurrence of bedwetting during sleep and awoke right away to clean himself and use the toilet on his own. It was reported that he was able to awake when he felt bladder pressure then he used to the toilet with out any help of his parent. Both P4 and his parent rated the condition as 80% improved than previous condition. P4 successfully maintained his progress. Over all improvement on nocturnal enuresis is presented in Figure- 3.11.

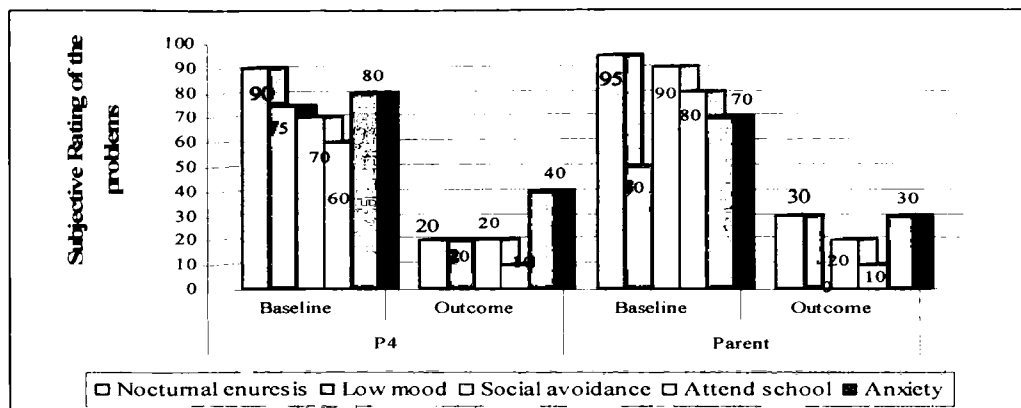
Figure-3.11: P4's Journey of overcoming Enuresis



The Figure-3.11 shows that the frequency of nocturnal enuresis was high on initial three sessions but when treatment was started, gradually it decreased from session to session. Within six weeks, it was 1. The progress was maintained all over the session.

P4's mother also reported that P4 does not refuse to go to school and visited relative's house and he was able to stay out side home without any hesitation. P4 reported that he was enjoying lot and felt confident. The subjective ratings of P4's problems are presented in the Figure-3.12.

Figure-3.12: Achievement of the treatment goal of P4's problem through subjective rating of the problem.



The Figure-3.12 indicates that in the initial sessions the subjective ratings of P4 problems were varying from P4 and his parent. But in the follow up session, when outcome were measured, those were quite similar.

Case Summary:

P4 case summary was presented in Table-3.8, where nature of the enuresis, contributing factors, treatment goal, baseline, and implementation of management and outcome of the management were discussed. In Table-3.8 it is described that P4 had nocturnal enuresis, where contributing individual factors were urinary track infection, low functional bladder volume, low self esteem, positive family history of enuresis and anxiety, low mood and suppressed aggression towards relatives. The contributing interpersonal factors were implementing multiple approaches in handling with his enuresis, poor toilet training, inconsistent parenting, and poor parental adjustment. P4's nocturnal enuresis, where the contributing contextual factors were low parental self-confidence, inconsistent reinforcement and moreover high family stress.

Table-3.8: Summary Impression of P4

Types of Enuresis: Primary Nocturnal Enuresis				
Contributing Factors	Treatment Goal	Baseline Data (Week- 1 & 2)	Implementation of Management (Week- 3 to 8)	Outcome (Week- 10 to 16)
Individual - Suppressed aggression, towards relative, - Anxiety, - Urinary track infection, - Low mood, - Low functional bladder volume, - Low self-esteem, - Positive family history of enuresis. Interpersonal - Negative parental attitudes on his problem. - Incoherent approach for solve enuresis - Inconsistent parenting - Poor of toilet training Contextual - Parental low self confidence - Inconsistent reinforcement for it. - High family stress.	(i)To reduce nocturnal enuresis,	Frequency 5 times in Aa (week-1), 6 times in Ab (week-2). Subjective rating (0-100)* - P4- 90. - Parent-95.	- Psychoeducation, - Dry bed training, - Scheduled wakening, - Cleanliness and Rewards System, - Retention Control Training, - Over-learning training.	Frequency 1 in A1(week-7), 2 in A2 (week-7 to 10), Subjective rating (0-100) - P4- 20. - Parent-30.
	(ii)To overcome low mood,	Subjective rating (0-100)* - P4- 75. - Parent-50.	- Focusing positive - Positive reinforcement	Subjective rating (0-100) - P4- 20. - Parent-0.
	(iii)To try to overcome P4's social avoidance behaviors,	Subjective rating (0-100)* - P4- 70. - Parent-90	- Social skill training - Role play	Subjective rating (0-100) - P4- 20. - Parent-20.
	(iv)To motivate to attend his school,	Subjective rating (0-100)* - P4- 60. - Parent-80.	- Social skill training - Role play	Subjective rating (0-100) - P4- 10. - Parent-10.
	(v) To prevent urinary track infection,	Did not take sufficient amount of water.	Psychoeducation about the importance of water intake, role of water on health.	P3 now change her water intake habit.
	(vi) To reduce anxiety,	Subjective rating (0-100)* - P4- 80. - Parent-70.	Relaxation	Subjective rating (0-100) - P4- 40. - Parent-30.
	(vii) To reduce parental conflict.	More conflict in font of P4.	Problem solving approaches (Pros and cons)	Less conflict than before.

*here, 0 =no problem and 100= worst condition of the problem

In Table-3.4 also reveal that seven treatment goals were set with P4 and his parents. For receiving first goal that was to reducing nocturnal enuresis, at first psychoeducation, dry bed training and reward system were applied but P4's response

of this intervention was slow, so schedule wakening, cleanliness, retention control training were applied, after that over learning training was applied for relapse prevention purpose. Through these interventions, P4 gradually overcame his enuresis problem quickly. In baseline assessment session Aa (week1) and Ab (Week 2), he did wet 6 times in week and he was able to maintain his progress within 6 weeks. So, 98.15% improvement was found in the last treatment session A1 (from week 6 to 7). 98.33% improvement was found in the 1st and last follow up session A2 (from week 7 to10).

The Table 3.4 also describes that for achieving second goal, focusing positive and positive reinforcement was used for overcoming low mood. Through this intervention, P4 gradually overcame his problem. In baseline assessment sessions, P4 and his parent rating this problem in 100 point scale, P4 rate the problem as 75% and his parent rate as 50%, where 100 means worst condition and 0 means best condition and he was successfully manage this problem with in five weeks and out come measurement session both P4 rated it as 20% and his parent 0%.

For reducing his avoidance behaviour in social gathering and school, social skill training and role-play were applied on behalf of reaching third and fourth treatment goal. Out comes of treatment show that P4 rated 20% problems in social avoidance and 10% problem in school refusal behaviour, where the baseline session, P4 rated 70% problems in social avoidance and 60% problem in school refusal behaviour and his parent rated 90% problem in social avoidance and 80% in school refusal .

The fifth goal, psychoeducation about water intake, role of water as well as function of kidney and prevalence rate of enuresis among the patient of urinary track infection were providing. The consequence was that P4 had tried to change his water habit. For reducing P4's anxiety related tension, imagery relaxation was used for achieving that last goal. Treatment outcome showed 40% problem, where the baseline was 80% problem. For reducing parental conflict pros and cons and psychoeducation about marital relation and impact of having argument in front of children, were used for achieving seventh goal. Treatment out come revealed that now they used to discuss and share all family problems with each other as a replacement for argument and criticism.

Besides, P4 was motivated to attend the treatment sessions, which helped the therapy; he was able to reduce his problem gradually. But his parent was not so supportive and they pushed the therapist to finish her duty as early as possible. It was assumed that if he would get proper guidance and support from his parents and other relatives, then he will be maintain himself in a better way. It further assumed that if his peer group will give him proper support, then he will also overcome his inferiority complex. It was assumed that if he practiced all of procedure which he learn in treatment session then he will be overcome his nocturnal enuresis problem as well as other problems. Therefore, it was established that only psychological management was able to reduce P4's nocturnal enuresis problem.

: Case-P5:

How the case was referred:

Case P5 is a ten years and six months old boy born on 28 April 1997. P5's mother contacted the current researcher from an advertisement in the newspaper asking for patients with bed wetting problem for a research purpose. After the current researcher interviewed P5's mother regarding his problem over the phone, she was asked to bring the child to the researcher for further treatment. P5's mother made an appointment to bring her child to BSMMU Paediatrics Nephrology Department, where the doctor diagnosed P5 with primary nocturnal enuresis. He was then referred to the current researcher for psychological management.

Description of the problem:

P5 and his mother came to the current researcher for his bed-wetting problem. He usually used to wet his bed every day in a week. During the in depth interview while the patient was being assessed other problems were discovered by the present researcher.

1. **Physiological:** P5 also sometimes suffered from urine infection and he usually slept very deeply.
2. **Cognitive:** He was a restless child and he did not have attention to his studies.
3. **Emotional:** P5 was suffering from inferiority complex and low self-esteem.
4. **Behaviour:** P5 had a habit of putting his own fault on his elder brother and he demanded a lot for doing something.

History of the problem:

Since birth P5 used to urinate on his bed during the night. At first he used to wet his bed every night and since the last three years it has been reduced to 5-6 times a week.

Relevant background information:

The following information is related with the problem of P5:

1. **Personal factor:** Following factors contributed his enuresis problems.
 - **Prenatal and perinatal** – While P5's mother was pregnant with him, she was healthy and P5 was born in due time by caesarean. P5 at birth was 3 kg.

- **Development-** P5 developed normally according to his age and he is intelligent.
- **Temperament** - P5 was not a responsible boy since childhood and he did some thing against his demand. He is extrovert and most of the time he played with his neighbour. Because of his hyperactivity, he could not pay attention in any work except watching TV cartoon. He usually quickly react and argued, when his parent talk about his limitation with other.
- **Medical** – P5 suffered one or two year from urine infection. At the age of seven he became ill with Chicken pox.
- **Academic history:** P5 usually gets average results in his studies. His favourite subject is English and Mathematics where he received 94 and 78 out of 100 and Bangla is his least favourite subject where he received 40 out of 100. P5 has history of changing different schools and he also shifted English medium to Bangla medium.
- **Social** – P5 is very social child and likes to stay outside of school very much. He can makes friend easily.

2. Contextual factor: Following factors contributed his enuresis problems.

- **Family environment:** P5 is part of a solvent single family and has one older brother and one youngest sister. His father is a 42 year old businessman, who has completed HSC. His mother is a 34 year old housewife who also has completed HSC level education. P5's family members are close and communicate well with each other but his eldest brother always teases him for his enuresis problem. P5's youngest sister also has a positive history of enuresis.
- **Parental relationship:** P5's mother and father have age difference of 8-years who are close and co-operative couple. They share all family duties and responsibilities equally.
- **Attachment with parents:** P5 has a very secure relationship with both his parents but he is closer with his mother than his father.
- **Toilet training:** Neither of P5's parents provided sufficient toilet training for him because they thought that his bed wetting problem will recover naturally as he grows older. However, when P5 was 6 to 7 years' old and did not overcome his enuresis problem, then his parents tried various types of methods to solve P5's enuresis problem such as various religious rituals, medicines such as Tofranil. At present, P5's mother verbally and physically abuses him for his enuresis problem.

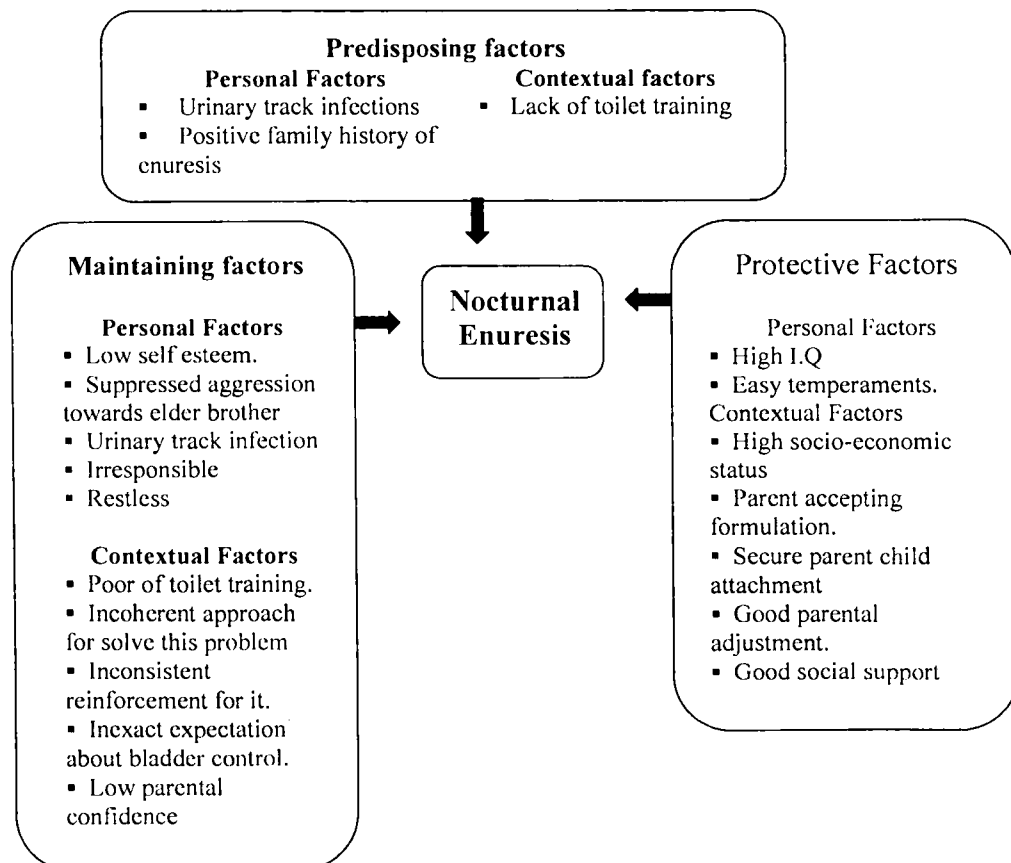
Session conduction:

A total of 10 sessions were done with P5. These 10 sessions were done within 15 week. Time of these sessions were divided in three categories, first-baseline Aa (week-1) and Ab (week-2); second-intervention B1 (week-3), B2 (week-4), B3 (week-6), B4 (week-7), and third- outcome A1 (week-8), A2 (week-10) and A3 (week-14). The appearance, behavior and emotional reaction of P5 and his parents were observed in every session, which helped with the assessment and treatment.

Shared Formulation:

Formulation is used to determine what the predisposing causes of his problem are and which factors contributed in maintaining his enuresis problem. The potential factors that can help P5 overcome his problem were discussed. It was described to P5 and his parent about his problem through a model. The model detailed formulation is presented in the figure: 3.13

Figure- 3.13: Formulation of the case of P5 with enuresis problem.



Through the above Figure 3.13, it was discovered that his personal predisposing factors were urinary tract infection, positive family history of enuresis and contextual predisposing factors were poor toilet training. The maintaining factors were low self-esteem, urinary track infection, suppressed aggression towards eldest brother and irresponsible behavior, poor toilet training, incoherent approach applied in solving problem and incoherent reinforcement for it, inexact expectation about bladder control, poor parental confidence. P5's problems were due to the above predisposing factors. The potential factors that contributed towards a good prognosis were high IQ, easy temperament and accepting formulation, high socio-economic status and secure parent child adjustment.

Management Goal:

In the first two sessions, assessment of the problems and its impact in different areas were done. After that the goals of management were set collaboratively with P5 and his parent. It was decided that

- ❑ To reduce nocturnal enuresis,
- ❑ To modify unrealistic demanding attitudes,
- ❑ To try to overcome P5's irresponsible behaviour,
- ❑ To modify his negative coping strategies by reducing problem behavior,
- ❑ To try to reduce his restless behaviour.

Management Plan:

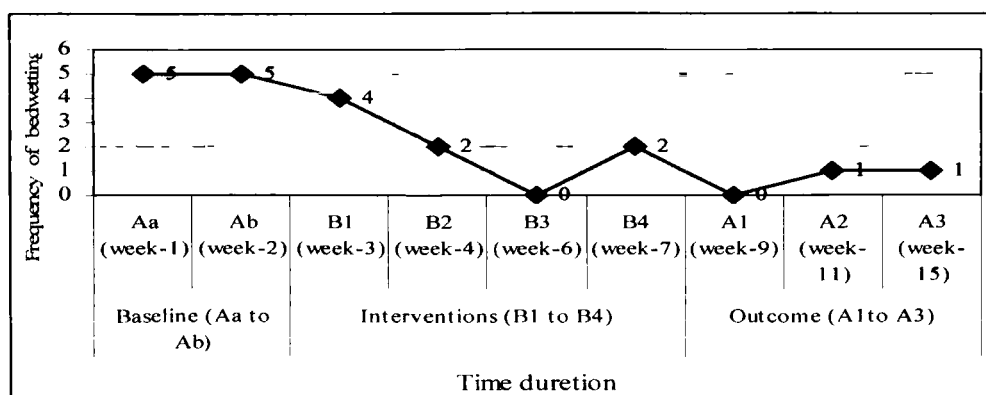
The researcher planning the following management strategies on the basis of P5's personal and environmental resources for the fulfilment above mentioned goals. During baseline assessment session, it would be revealed that P5 has above average IQ and he was eager to associate his new knowledge with previously acquired knowledge. So this would be more appropriate for him.

Table-3.9: Rational of Management Plan for P5

Management Strategies	Purpose of selecting
(i) Psychoeducation:	For providing knowledge about bladder functioning.
(ii) Schedule awakening:	For build up habit to visit toilet after certain times.
(iii) Cleanliness training :	For develop self-responsibility
(iv) Reward System :	For encourage him to involve in therapeutic process.
(vi) Retention control training :	For developing ability to hold his urine for certain time.
(vii) Over learning training:	For developing capacity to hold extra fluid at night time.
(ii) Problem solving approach: - -When and then rules - Praise-ignore formula	For modifying his problem behaviour such as projecting others and unrealistic demands
(ix) Behavioural Experiment:	For modifying his unrealistic demanding attitudes.
(x) Relaxation:	For reducing his restless behavior.
(xi) Five steps problem solving:	For reducing his restless behavior
(xi) Creative therapy: -Staircase to success	For reducing irresponsible behavior

Outcome of Management:

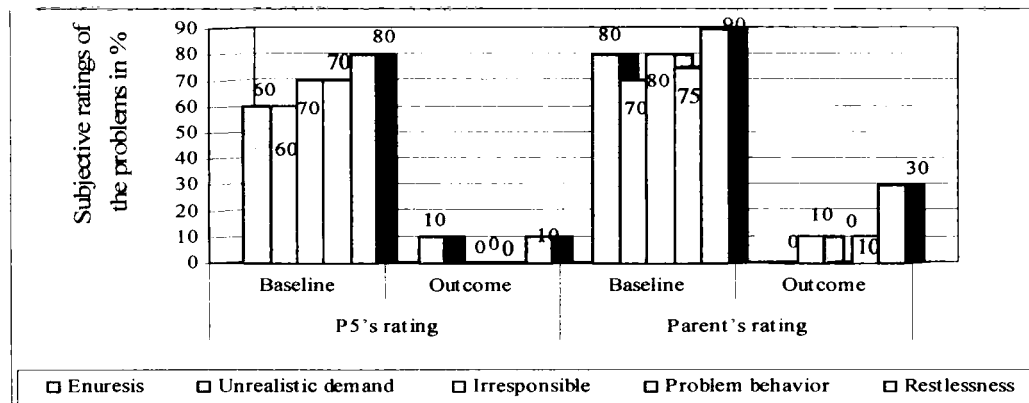
In the last follow-up session, it was reported that only one bedwetting did occur during the last 30 days, but P5 tried to successfully maintain all of his progress. Over all improvement on both nocturnal enuresis is presented in Figure- 3.1. P5's parent also reported that now P5 did not refused to do what's his parent instructed and he would be able to stay without restlessness. His parent also noticed that he was more realistic. P4 reported that he was enjoying lot and felt confident. The subjective ratings of P5's problems are presented in the Figure-3.15.

Figure-3.14: P5's Journey of overcoming Enuresis.

The Figure-3.14 shows that the frequency of nocturnal enuresis was high on baseline

assessment sessions and it gradually decreased when intervention was implemented and within six weeks it was 0. But it increased only one times at seven week and P5 could maintain his progress all over the session.

Figure-3.15: Achievement of the treatment goal of P5's problem through subjective rating.



The Figure-3.15 indicates that in the initial session, the subjective ratings of P5's problems were perceived as quite varying from P5 and his parent. But in the follow up session, when outcome were measured, those were quite similar that indicated significant positive outcome.

Case Summary:

P5's case summary is presented in Table-3.10, where nature of the enuresis, contributing factors, treatment goal, baseline, and implementation of management and outcome of the management were discussed. In Table-3.5 disclosed that P5 has primary nocturnal enuresis, where contributing individual factors were urinary track infection, deep sleep, low self esteem, positive family history of enuresis, restlessness and suppressed aggression towards eldest brother. In this problem, contributing interpersonal factor were illogical approaches in dealing with his enuresis, poor toilet training; and contributing contextual factors were, low parental self confidence, inconsistent reinforcement applied and unreal expectation of parent about his bladder control.

The Table 3.10 also reveal that five treatment goal was set with P5 and his parent. For achieving the first goal that was to reduce nocturnal enuresis, psychoeducation, reward system, schedule wakening, cleanliness, retention control training, over

learning training was applied. Through these interventions, P5 gradually overcame his enuresis problem. In baseline assessment session Aa (week1) and Ab (Week 2), he did wet 5 times in week and he was able to overcome this problem within six weeks. So, 100% improvement was found in the last treatment session A1 (from week 7 to 9). 90.14% improvement was found in the 1st follow up session A2 (from week 9 to 11) and 95.77% improvement was found in the final follow up session A3 (from week 11 to 15).

For achieving second goal, 'Praise & Ignore formula' and 'behavioural experiment' was used for reducing unrealistic demanding attitudes. Through this intervention, P5 gradually overcame his problem. In baseline assessment sessions, P5 and his parent rating this problem in 100 point scale, P5 and his parent rate the problem as 60% and 70%, where 100 means worst condition and 0 means no problem and he was successfully manage his problem and out come measurement session both P5 rated as 0% and his parent rated as 0%.

For reducing his irresponsible behaviour, Staircase to Success was applied for reaching third treatment goal. Through this intervention, P5 gradually overcame his problem. In baseline assessment sessions, P5 and his parent rating this problem in 100 point scale, P5 and his parent rate the problem as 70% and 80%, where 100 means worst condition and 0 means best condition and out come measurement session both P5 and his parent rated it as 0%.

Table-3.10: summary impression of Case P5.

Types of Enuresis: Primary Nocturnal Enuresis				
Contributing Factors	Treatment Goal	Baseline Data (Week- 1 & 2)	Implementation of Management (Week- 3 to 8)	Outcome (Week- 10 to 16)
Individual - Suppressed aggression towards eldest brother, - Deep sleep, - Urinary track infection, - Low functional bladder volume, - Low self-esteem, - Positive family history of enuresis. Interpersonal - Negative parental attitudes on his problem. - Illogical approach for solve enuresis - Poor of toilet training Contextual - Parent's low self - confidence - Inconsistent reinforcement - Unreal expectation about bladder control.	(i)To reduce nocturnal enuresis,	Frequency 5 times in Aa and Ab (week-1 & 2). Subjective rating (0-100)* - P5- 60%. - Parent-80%.	- Psychoeducation , - Scheduled wakening, - Cleanliness and Rewards System, - Retention Control Training, - Over-learning training.	Frequency 0 in A1 (week-7 to 9), 1 in A2 (week-9 to 11) and A3 (week-11 to 15). Subjective rating (0-100)* - P5- 10%. - Parent-0%.
	(ii)To modify unrealistic demanding attitudes,	Subjective rating (0-100)* - P5- 60%. - Parent-70%.	- Behavioral experiment - Praise- ignore formula	Subjective rating (0-100)* - P5- 0%. - Parent-10%.
	(iii)To try to overcome P5's irresponsible behaviour,	Subjective rating (0-100)* - P5- 70%. - Parent-80%.	Staircase to success	Subjective rating (0-100) - P5- 0%. - Parent-0%.
	(iv)To modify his problem behaviors,	Subjective rating (0-100)* - P4- 70%. - Parent-75%.	- When then rules - Reward system	Subjective rating (0-100) - P5- 0%. - Parent-10%.
	(v) To try to reduce his restless behaviour.	Subjective rating (0-100)* - P5- 80%. - Parent-90%.	- Relaxation 5- steps problem solving approaches	Subjective rating (0-100) - P5- 10%. - Parent-30%.

*here, 0 =no problem and 100= worst condition of the problem.

The table 3.10 elaborated that for modifying his faulty coping strategies, 'When & Then rules' and reward system was used for achieving the fourth goal. Treatment outcome revealed that now he used to share his mistake with family members as a replacement for denial and projection on others. In baseline assessment sessions, P5

and his parent rate the problem as 70% and 75% and in out come measurement session, P5 rated it as 0% and his parent rated it as 10%. To achieve the fifth goal of the treatment, 'five steps problem solving approach' and relaxation was used for reducing his restlessness. Consequences of these treatments were that the problem reduced to 20%, where the initial baseline was 80%.

Beside this, P5 and his parent were motivated to attend the treatment sessions, which helped the therapeutic process; he was successful in reducing his problem gradually. But his parent was very supportive and they helped the therapist eagerly. It could be assumed that if he would get proper guidance and support from his parents and siblings, then he could maintain himself in a better way. It can be further assumed that if his peer group would give proper support, he could prevent conduct problem more easily.

It was assumed that if he practiced all of procedure which he learn in treatment session then he will be overcome his nocturnal enuresis problem as well as other problems. Therefore, it was established that only psychological management was able to reduce P5's nocturnal enuresis problem.

: Case-P6:

How the case was referred:

When case P6 is came to the present researcher then she was 5 years and 8 months old girl born on 11th February 2003. P6's mother contacted the current researcher from an advertisement in the newspaper asking for patients with bed wetting problem for a research purpose. After the current researcher interviewed P6's mother regarding P6's problem over the phone, she was asked to bring the child to the researcher for further treatment. P6's mother made an appointment to bring her child to Paediatrics Nephrology Department, BSMMU where the doctor there diagnosed P6 with secondary nocturnal enuresis. She was then referred to the current researcher for psychological management.

Description of the problem:

P6 and her mother came to the current researcher for her enuresis problem that occurred mostly on every night. Sometimes if she was playing she held her urine and by the time she reached bathroom she wetted her pant. She was afraid that she has a tendency to wet her pants. During the in depth interview while the patient was being assessed, other problems were discovered by the present researcher.

1. Physiological: P6 is a very light sleeper and, most nights she wake up frightened. She also has a psychogeneses-vomiting tendency. She has a habit of drinking too much water before sleep from childhood.

2. Cognitive: According to P6's mother, P6 has a very low attention span. She could not pay attention to anything for long term

3. Emotional: P6 is a very frightened child and never liked to be alone. Her mother also reported that most of the time she is anxious.

4. Behavior: P6 is a stubborn child and if she decides not to do something, then it is very difficult to convince her otherwise. Her mother said that P6 does not like to share with her other two brothers. She likes to seek attention from others.

5. Social: P6's mother claimed that she is shy child but the current therapist observed that she is a very social and friendly girl. Due to her enuresis problem, P6 does not like to sleep with anyone other than her parents.

History of the problem:

P6 did not have a bed-wetting problem on a regular basis until she was three and half years old. She only used to urinate in her bed if the weather was cold. However, when she was three and half years old she was going to her grandmother's house with her mother on a bus. During the journey they were sitting in the back of the bus and she was crying, so the bus conductor took her to the front of the bus to help her calm down. P6 continued to cry and at that time her mother brought her back and later noticed that P6 was physically abused because she noticed that P6 had vaginal bleeding. After that incident P6's enuresis problem began.

Relevant background information:

The following information is related with the problem of P6:

1. Personal factor: Following factors contributed her enuresis problems.

- **Birth:** While P6's mother was pregnant with her, she had a breathing and hypertension problem and P6 was born by caesarean. P6's birth weight was 2.5 kg.
- **Development:** P6 developed normally according to her age and she is very intelligent.
- **Temperament:** P6 is very self-conscious and dislikes any sort of criticism. She is also very dominating, self-centred and has a nagging behavior.
- **Medical:** P6 has digestive problems and suffers from diarrhoea a lot. When she was two years' old, she was admitted to ICDDR, B due to severe diarrhoea. When she was four she had chicken pox and recovered normally.
- **Academic performance:** P6 started attending school when she was four years' old. At the first day of class she cried a lot but later was able to adjust. 2-3 months later when she could not recite her study out loud, her teacher punished her by slightly twisting her ear. Since that incident, P6 refused to attend school.
- **Social:** P6 has always been a very social child. She can make friends easily but after certain period, she had a conflict for her selfishness. She could not allow any body excepting her parent for her bed-wetting problem.

2. Contextual factor: Following factors contributed her enuresis problems.

- **Family environment:** P6 is part of a solvent single family and has two older brothers. Her father is a 42 years old businessman and has completed HSC in his

studies. Her mother is a 34 years old housewife and also tutors few children at home. She has also completed HSC level in her education. P6's family members are close and communicate well with each other. Amongst all the family members, P6 is given the most attention and importance. Since the abusive incidence in the bus, P6's mother started giving extra attention and care towards her. P6's second eldest brother also has a positive history of enuresis.

- **Parental relationship:** P6's mother and father have 8-years of age difference and they are close and co-operative couple. They share all family duties and responsibilities equally.
- **Attachment with parents:** P6 has a very secure relationship with both her parents but she is closer with her father than her mother. .
- **Toilet training:** P6's mother started potty training when P6 was seven months old. Until she was three and half years old she used the potty on a regular basis. However, when her mother tried to get her to use the regular toilet she used to refuse and retain her urine and then would wet her pants. Her mother would then yell at her for not listening.

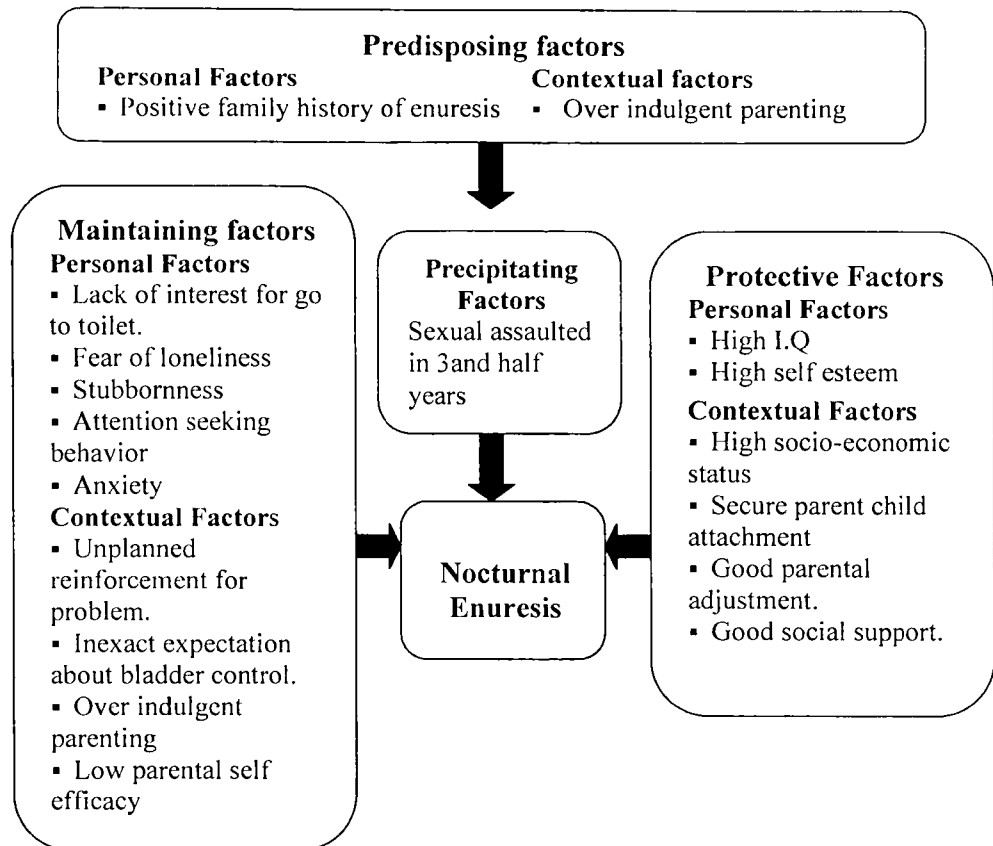
Session conduction:

A total of 12 sessions were done with P6. These 12 sessions were done within 19 week. Time of these sessions were divided in three categories, first-baseline Aa (week-1), Ab (week-2) and Ac(week -3); second-intervention B1 (week-4), B2 (week-5), B3 (week-6) and B4 (week-7), B5 (week-9), B6(week-10. and third-outcome A1 (week-11), A2 (week-14) and A3 (week-19). The appearance, behavior and emotional reaction of P6 and his parents were observed in every session, which helped with the assessment and treatment.

Shared Formulation:

Formulation is used to determine what the predisposing causes of her problem are and which event or incidence act as precipitating factors as well as which factors contributed in maintaining her enuresis problem. The potential factors that can help P6 overcome her problem were discussed. It was described to P6 and her parent about her problem through this model. The detailed formulation is presented in the figure: 3.16.

Figure- 3.16: Formulation of the case of P 6



Through the above Figure 3.16, it was discovered that the predisposing factors were positive history in family and overindulgent parenting. P6 had lack of interest in using the toilet, fear of loneliness, attention seeking behavior and stubbornness were the maintaining factors. P6's problems started due to sexual assault by bus conductor which was the precipitating factors. The potential factors that contributed towards a good prognosis were high IQ, high self-esteem, secure parent-child attachment, good parental adjustment and good social support.

Management Goal:

In the first three sessions, assessment of the problems and its impact in different areas were done. After that the goals of management were set collaboratively with P6 and her parent. It was decided that

- ❑ To reduce nocturnal enuresis,
- ❑ To motivating her for go to toilet,

- ❑ To reduce fear of loneliness,
- ❑ To try to overcome problem behaviour such as selfish ness, stubbornness, and attention seeking behavior.
- ❑ To overcome psychogenic vomiting.
- ❑ To reduced anxiety.
- ❑ To build up awareness about sexual abuse.

Management Plan:

The researcher planning the following management strategies on the basis of P6's personal and environmental resources for the fulfilment above mentioned goals. During baseline assessment session, it would be revealed that P6 has average IQ and she was interested to draw and coloring pictures. So this would be more appropriate for her to reach the goals.

Table-3.11: Rational of Management Plan for P6.

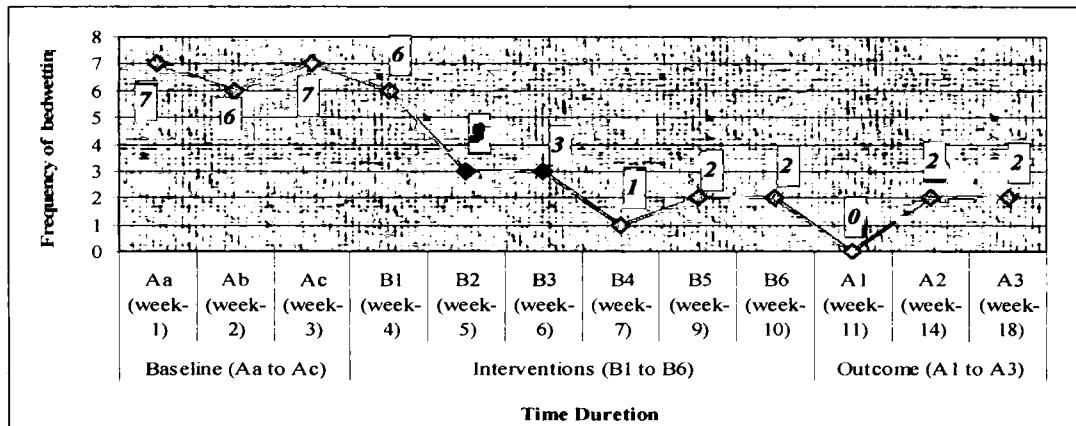
Management Strategies	Purpose of selecting
(i) Psychoeducation:	For providing knowledge about bladder functioning and how to protect own body from any harm.
(ii) Role-play:	For developing habit of visit toilet.
(iii) Schedule awakening:	For build up habit to visit toilet after certain times.
(iv) Cleanliness training :	For develop self-responsibility.
(v) Reward System :	For encourage her to involve in therapeutic process.
(vi) Retention control training :	For developing ability to hold her urine for certain time.
(vii) Over learning training:	For developing capacity to hold extra fluid at night time.
(viii) Fluid restriction:	For changing the habit of taking excessive of water in evening and take milk before go to bed.
(ix) Systematic desensitisation:	For reducing her fear of loneliness.
(x) Problem solving approach: When and then rules, Praise-ignore formula, Pros and cons.	- For modifying her problem behaviour such as stubbornness, attention seeking behavior and psychogenic vomiting.
(xi) Relaxation:	For reducing her tension.
(xii) Creative therapy: -Staircase to success.	For reducing problem behavior such as selfishness.

Outcome of Management:

P6 successfully maintained her progress. Over all improvement on nocturnal enuresis is presented in Figure- 3.17. The Figure-3.17 shows that the frequency of nocturnal enuresis was extremely high on baseline assessment sessions and it gradually

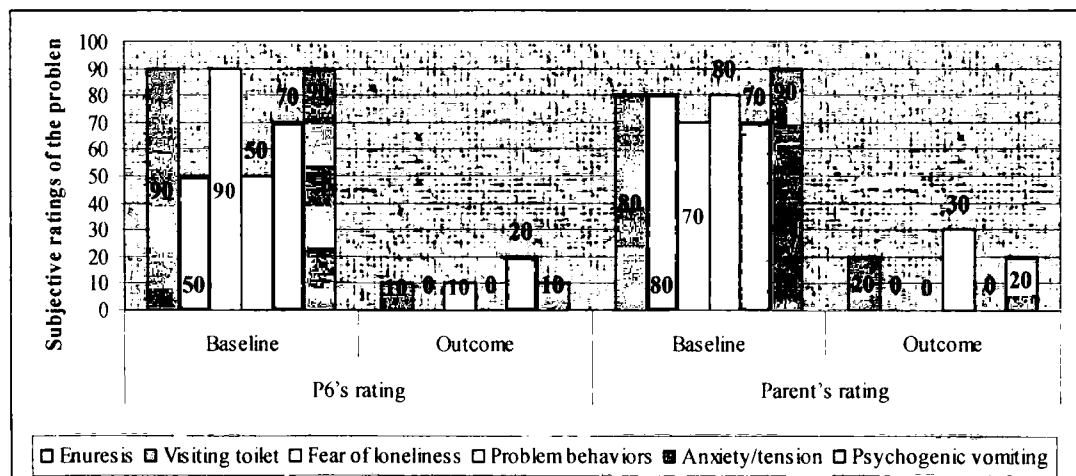
decreased, when intervention was implemented. Within eleven weeks, it was 0. But it was increased in fourteen weeks. In the last follow up session, it was reported that twice during the middle of the month P6 had occurrence of bedwetting in her sleep and after that she awoke right away to clean her and used the toilet on her own.

Figure-3.17: P6's Journey of overcoming Enuresis



P6 has also comparatively decreased her fear of loneliness and problem behaviors. The subjective ratings of P6's problems are presented in the Figure-3.18.

Figure-3.18: Achievement of the treatment goal of P6's problem through subjective rating of the problem.



The Figure-3.9 indicates that in initial session the subjective ratings of P6 problems were varying from P6 and her parent. But in follow up session, when outcome were measured, those were quite same.

Case Summary:

P6 case summary was presented in Table-3.12, where nature of the enuresis, contributing factors, baseline and implementation of management and outcome of the management were discussed. P6 has secondary nocturnal enuresis, where contributing individual factors were sexual abuse, attention seeking and stubbornness behaviour, positive family history of enuresis and uninterested for going to toilet. In this problem, contributing interpersonal factor was over indulgent parenting and contributing contextual factors were low parental self-efficacy, inconsistent reinforcement applied for it and moreover unreal expectation of her parent about bladder control. It impacted on P6's emotional, behavioral and social areas.

The Table 3.12 also reveal that six treatment goals were set with P6 and her parent for reaching first goal which was to reduce nocturnal enuresis. For this psychoeducation, fluid restriction, schedule waking, cleanliness and reward system, retention control and over learning training were applied. Through these interventions, P6 gradually overcame her enuresis problem. In baseline assessment session Aa (week1), Ab (Week 2) and Ac (week-3), she did wet 7 times in week and she was able to overcome this problem within 11 weeks. So, 100% improvement was found in the last treatment session A1 (from week 10 to 11). 98.5% improvement was found in the 1st follow up session A2 (from week 11 to14) and 69.43% was found in the final follow up session A3 (from week 14 to 19).

For developing a habit of go to toilet for voiding, star chart and role-play was applied. Through this treatment, P6 gradually overcame her problem. In baseline assessment sessions, P6 and her parent rating this problem in 100 point scale, P6 and her parent rate the problem as 50% and 70%, where 100 means worst condition and 0 means best condition and she was successfully manage this problem within two weeks (B1 and B2) and in out come measurement session (A3) both P6 and his parent rated it as 0%.

Table-3.12: Summary impression of P6

Types of Enuresis: Secondary Nocturnal Enuresis				
Contributing Factors	Treatment Goal	Baseline Data (Week- 1 & 2)	Implementation of Management (Week- 3 to 8)	Outcome (Week- 10 to 16)
Individual - Sexual assault, - Anxiety, - Attention seeking behavior, - Positive family history of enuresis, - Lacks of interest go to toilet, - Stubbornness. Interpersonal - Over indulgent parenting Contextual - Low parental self-efficacy. - Unreal expectation about bladder control. - Unplanned reinforcement for it.	(i)To reduce nocturnal enuresis,	Frequency 7 times in Aa (week-1), 6 times in Ab (week-2). 7 times in Ac (week-3). Subjective rating (0-100)* P6- 90. Parent-80.	- Psychoeducation, - Scheduled wakening, - Cleanliness and Rewards System, - Fluid restriction, - Retention Control Training, - Over-learning training.	Frequency 0 in A1(week-10 to 11), 2 in A2 (week-11 to 14), 2 in A3(week-14 to 18) Subjective rating (0-100)* P6- 10. Parent-20.
	(ii)To motivating her for go to toilet,	Subjective rating (0-100) * P6- 50. Parent-80.	Role play and star chart.	Subjective rating (0-100)* P6- 0. Parent-0.
	(iii)To reduce fear of loneliness,	Subjective rating (0-100) * P6- 90. Parent-70	Systematic desensitisation.	Subjective rating (0-100)* P6- 10. Parent-0.
	(iv)To try to overcome problem behaviours,	Subjective rating (0-100) * P6- 50. Parent-80.	- Staircase to success. - When and then rules. - Praise-ignore formula.	Subjective rating (0-100)* P6- 0. Parent-30.
	(v) To overcome psychogenic vomiting,	Subjective rating (0-100) * P6- 90. Parent-90.	- Pros and cons. - Psychoeducation - Role play	Subjective rating (0-100)* P6- 10. Parent-20.
	(vi) To reduce anxiety,	Subjective rating (0-100)* P6- 70. Parent-70.	Relaxation.	Subjective rating (0-100)* P6- 20. Parent-0.
	(vii) To build up awareness about sexual abuse.	Not so aware	Psychoeducation about body parts.	Conscious about touching.

*here, 0 =no problem and 100= worst condition of the problem

The table 3.12 indicated that for achieving third goal, systematic desensitisation was used for over coming fear of loneliness. Outcome of these treatments were established that 88.88% improvement, where P6 rated her problem as 10% in A3, and 90% in Ab session. Staircase to success, when and then rules, praise-ignore formula used for reducing her selfishness, stubbornness and attention seeking behavior as well as problem behavior. The out comes of this management show that according to her

parent 30% problem and according to P6 0% problem was persistent in the last follow-up session (A3). So, 100% improvement was found from the 1st baseline session (Aa) to the final follow up session A3 (Week-18).

The table- 3.12 also showed that psychoeducation about diet, role-play, pros and cons, showing alternative behavior were used for reducing vomiting behaviours. The consequence was that P6 had tried to change her vomiting habit. The outcome showed that according to P6 only 10% and according to her parent 20% problem persisted at present, where base line data was 90%. The table also showed that through relaxation, she could be able to reduce her anxiety. In the last follow-up session, P6 rated her anxiety as 20% and her parent as 0%, where in the initial assessment session; both of them rated it as 70%. The Table-3.12 disclose that for preventing sexual abuse and built up awareness about it, psychoeducation about how to protect own self as well as own body from others badly touching was given to P6. The consequences of that psychoeducation showed that P6 was more conscious about herself.

P6 and her parent were motivated to attend the treatment session, which helped the therapy session and within few sessions, she could reduce her problem gradually. It could be assumed that if she would get proper guidance and support from her parents and family members, then she could maintain himself in a better way. It further implicate that if her parents would not share her abusive history with her or any others, then that could not bring long term effect.

Beside this, P6 and her parent were motivated to attend the treatment sessions, which helped the therapeutic process; she was successful in reducing her problem gradually. Her parent was very supportive and they helped the therapist eagerly. It could be assumed that if she would get proper guidance and support from her parents and siblings, then he could maintain herself in a better way.

It was assumed that if she and her parent practiced all of procedure which she learn in treatment session then she will be overcome her nocturnal enuresis problem as well as other problems. Therefore, it was established that only psychological management was able to reduce P6's nocturnal enuresis problem.

Part-I (b)

Presentation of summary of the cases

How patient was referred:

Six cases were selected for the present study. 5 of cases were self referred through advertisement and only one was referred by family physician. Among the cases 4 were enlisted in out patient Department of Paediatric Nephrology, BSMMU and 2 were enlisted in out patient Department of Clinical Psychology, DCH.

Demographic information:

Among the six cases, three cases were male and three cases were female. The age range of the participants was between 5 years 8months to 10 years 10 months. Among them 3 cases were 1st born, only 1 case was 2nd born and 2 cases were 3rd born child. 5 cases among the participants study in school and rest of 1 study in home. Among the father of 1 case was completed MSS, 2 cases were graduated, 2 cases were HSC and 1 case was SSC. Among the fathers of six cases 5 were Businessman and only 1 was service holder. Among the mother of 1 case was completed MA, 1 case was Dakhil, 1 case was SSC and the rest of 2 cases were HSC. The mothers of all cases were housewife. All of the participants come from Dhaka and among them 5 cases were upper middle class and 1 case was lower middle class.

Description of the problem:

Among the six cases, 4 were diagnosed as 'primary nocturnal enuresis', 1 was 'both primary nocturnal and diurnal enuresis' and only 1 case was 'secondary nocturnal enuresis'. The 4 cases of the participants were wet their bed in everyday at night, 1 case was wet his bed 4-5 times in a week and 1 case was wet his bed 5-6 time in a week. Among the cases, 1 was also wet her bed during sleep at daytime.

History of the problem:

Since the birth, 5 of the cases were suffered in nocturnal enuresis and rest of 1 case was suffered in this problem after the sexual harassment incident.

Relevant background information:

The following information is related with the problem of enuresis. These were:

1. Personal factor: Subsequent factors contributed enuresis problems.

- **Prenatal and perinatal** – Among the six cases, 5 of the case were suzerain delivery and only 1 was normal delivery. The 4 of the cases were born within expected time and 2 of the cases were premature born. The mothers of 2 cases were suffered from psychological problem, 3 cases suffered from physiological problem and 2 cases were sound health during prenatal period. Most of all were born with normal birth weight.
- **Development** – The development among the 6 participants, 5 had a history of normal sensory- motor, language, and cognitive, social development according to their age. The rest of 1 had a history of delayed in sensory –motor and language development according her age. Most of the cases are average intelligent, except only one case is a slow learner.
- **Temperament** – The temperament among the six cases, 3 cases were extrovert and 2 cases was introvert and only 1 was balanced. The 4 cases were much sensitive about their limitation, 2 cases had nagging typed and jealous. Among the six participants, 3 were responsible and 2 were totally irresponsible. The 3 cases were stubborn, 2 cases were anxious and 1 case was depressed. Among the six cases, 2 were naturally undemanding where 1 was too much demanding and 1 case was more dominating and self-centred. Among the cases 1 was more social and easy going and 2 were more hyper typed.
- **Medical** – The physical condition among the six cases, 2 were under weight and only 1 was obese. The 3 cases had a history of suffering in urine infection and 2 cases had gastrointestinal problem and fever, the rest of the 1 case has maintained good physical health.
- **Academic performance** –Among the six cases, 1 case could not attend school and the rest of the 5 were continued schooling. The 2 cases had an excellent academic result and 2 cases had average result and 1 case had worst result. The 3 cases had a history of rapid school changing.
- **Social** – The 4 cases were social and friendly but among of them the 2 cases were not sustained their relationship for long time due to their behaviour. The rest of

the two among the six cases, 1 was friendly and social within family and rest of the 1 was not so social.

2. Contextual factor: Following contextual factors contributed enuresis problems.

- **Family environment** – Among the all cases, 5 of the participants settled in their own house and 1 of the 5 participants stayed with joint family as well as 4 of the 5 cases stayed with single family. The rest of the 1 among the six cases settled in rented house with single family. The good relationship was belonging in 5 cases with their family member but 2 of them had some conflict with their sibling. The rest of the 1 among six cases was not belonging good relationship with family members. From the assessment the parental authorisation were found that inconsistent within 2 cases, over permissive within 2 cases and only 1 cases had over protective; the rest of the 2 case had consistent parenting among the six participants.
- **Parental relationship** – In this study, among the six, the parents of 4 cases were maintained good relationship and they shared their duties and responsibilities with each other. However, the parents of two cases were not maintained good relationship. One of the 2 cases, parental relationship was quite unhealthy and its impact on their child mind.
- **Attachment with parents** – Among of the six cases, only case had poor attachment with mother and love hated relationship was belonging with his parents. Other cases had good relation with their parents. However, when Heart String of creative therapy exercise were used on the participants for assessed their relationship, then it would be disclosed that 4 the cases were more attached with their mother than father and 2 cases were more attached with their father.
- **Toilet training Practice** – Among the six cases, only one participant had got proper toilet training before 18 month of age from his parent. Other of the cases had not got any formal or informal toilet training before the treatment. All of the cases parents had unrealistic expectation about the bladder control and most of the parent expected that within few sessions their child would be obtained new skill to stop bedwetting. Most of the all cases had experienced verbal abused and 3 of them had also experienced physical abused. Beside this, different types of measures except psychological intervention were used for overcoming enuresis within 5 cases. Among the six cases, during the assessment session, the high scores of Toilet Training

Practice (ITP) were found within 4 cases that indicated poor of toilet training practiced and the low score was found only 1 case that indicated harsh toilet training practice and medium score found within 1 case that indicated flexible toilet training practices.

All above the information was played an important role in the problem of enuresis.

Session conduction:

In this study, 9 to 14 sessions were conducted with the participants. The findings of these sessions were discussed in below:

Baseline Assessment and measures (Aa-Ab/Ac):

In this research, at first the researcher was assessed the problem's severity and its impact on the case through frequency chart and in-depth interviews. Before formulation sharing and goal setting the researcher took 2-3 baseline assessment sessions that focused on collecting information about participants' individual, interpersonal and contextual factors. Beside this, through frequency chart as homework of patients and their parents, it showed that among the six cases, only 1 case wetting her bed for diurnal enuresis three times and bed wetting during the day was twice and nocturnal enuresis occurred eight times. More or less, the other 1 was wetted her bed in 7 times within 7days interval and the number of two cases were wet their bed only 6 times and the rest of 2 wetted 5 times within a week. In this assessment sessions through in-depth interview, it was found that all of the cases suffering from lots of behavioural and emotional problems that also helped to maintain enuresis. Among the six cases, the number of 4 cases had low self-esteem and social avoidance behaviour; 3 cases had stubbornness, inferiority complex; 2 cases had irresponsible and attention seeking behaviours, fear and anxiety related problem. Besides this, nail biting, demanding attitudes and maladaptive coping strategies, slow learning capacities were also found within different cases. Beside this, six cases also sufferings lots of physiological problems. Among the six cases, the number of 4 cases had deep sleep, 3 cases had urinary track infections and 1case had constipation problems.

Shared Formulation:

In the present study, formulations were shared with all of the participants and their parents. Predisposing –precipitating- maintaining - protective factors analysis were used for all cases. In predisposing factors, delayed language and sensory motor development, constipation and poor attachment with mother were found within only 1 case, small bladder capacity were found within 2 cases, urinary tract infection were within 3 cases, deep sleep, positive history of family was within 4 cases more over, poor toilet training was found within 5 cases. It was also discovered that only 1 case had precipitating factors that was sexual abuse. In maintaining factors, all of the cases were found unplanned or inconsistent reinforcement for enuresis, inexact expectation. Poor toilet training were found within 5 cases, poor self- esteem and low parental self confidence or efficacy were found within 4 cases and stubbornness, urinary track infection, suppressed aggression and applied overlapping or inconsistent approach for solve the problem were discovered within 3 cases. Lack of going to toilet, irresponsible, restless, uncommon issue in family, fear of toilet, immature coping strategies, poor parental adjustment, incoherent and overindulgent parenting were found within 2 cases. Furthermore, fear of loneliness, low mood, and attention seeking behaviours, overprotective parenting, obesity, insecure attachments with parent and poor social support were discovered within 1 case. In protective factors, good social support and secure parental attachment were found within 5 cases, high IQ, high socio-economic status were revealed within 4 cases and low family stress, good parental adjustment easy temperaments were found within 3 cases, high self-esteem were found within 2 cases. More over, mature coping strategies, good physical health, supportive extended family and both parent involvement were revealed within 1 case.

Management Goal:

After completing the assessment and sharing the formulation, some therapeutic goals were set at the end of the 3rd session within 5 cases and only one cases it was set at the end of the 4th session. All therapeutic goals were set collaborate between the participants and the researcher before giving the intervention. The following common goals were set for psychological intervention among the 6 cases:

- ❑ To overcome diurnal enuresis,
- ❑ To reduced nocturnal enuresis,
- ❑ To overcome other related psychological problem,
- ❑ To manage other related physical problem.

The first goal as well as to overcome diurnal enuresis was set for only 1 case and second goal such as to reduce nocturnal enuresis was common for all of the six cases. In third goal, try to overcome stubborn ability was common for 3 cases out of 6, to reduce parental conflict was common for 2 cases out of 6, to overcome fear of toilet, fear of social situation, low mood, slow learning ability, nail biting habits, psycho genes vomiting, nagging behaviour, unrealistic demanding attitudes, irresponsible, restless and selfish behaviour were set for individual cases. It also set that to motivate for go to toilet; attend school, towards study and to improved intellectual ability, to awarded sexual abuse, to modified faulty coping strategies were set for individual cases. More over, in forth goal, to reduced and prevent constipation and urinary track infection were set for individual cases.

Psychological Management/Interventions (B):

All participants got psychological intervention by the researcher for enuresis. The intervention sessions were varied from one case to other depending of their problem severity and availability. For enuresis motivational therapy, creative therapy, psychoeducation, schedule awakening, cleanliness training, reward system, retention control training and over learning training were used for 5 cases out of 6 cases and dry bed training was applied for 3 cases out of 6. Beside this, other related psychological and physical problems were also noticed and tried to resolve those. For fear related problems, systematic desensitisation, relaxation was used towards 3 cases out of 6 cases and for motivation and avoidance related problems, role-play, start chart, social skill training was used for 3 out of 6 cases. For modifying problem behavioural, staircase to success of creative therapy, role-play, rewards System, problem-solving skills (A-B-C), when & then rules, praise and ignore formula, habit reversal training and pros and cons, alternative behavior were used towards individual cases. For relationship problem psychoeducation, pros and cons were used to 2 out of 6 cases.

Out-come Measures (A1-A3): After proving intervention, the outcomes were measured from session to session to monitor or observed or evaluate the change. Among the 6 participants, most therapeutic goals were achieved satisfactorily and few of them were achieved partially. Most of the cases informed that they felt much better than before. The out come of the psychological management disclose that diurnal enuresis was totally removed for 1 out of 1 case. There was no occurrence of nocturnal enuresis was found in the number of 2 case out of 6 and only 1 time occurrence was found in 4 out of 6 cases during the last day of intervention (A1). During the first follow-up, the number of 2 cases had remained dry or no occurrence of bed-wetting, 2 cases were 1time wetting their bed and rest of 2 cases were wetting bed 2 times within on an average 13.16 days interval. During the last follow-up within on an average 31days interval, there was no occurrence of bedwetting was found only 1 out of 6 cases, within 2 cases had a consequence of 1 time bed wet and 2 cases had a incident of 2 times bedwetting. The out-come results of enuresis indicated that all of the 6 participants were capable to reduce their bedwetting behaviour through psychological management. Besides this, after intervention parental attitudes towards enuresis were more balanced than before. It also helped to reduce other enuresis related psychological problems.

Part-II

Presentation of the Findings

1. Demographic Information:

Table-3.13: Demographic findings of the participant's personal status.

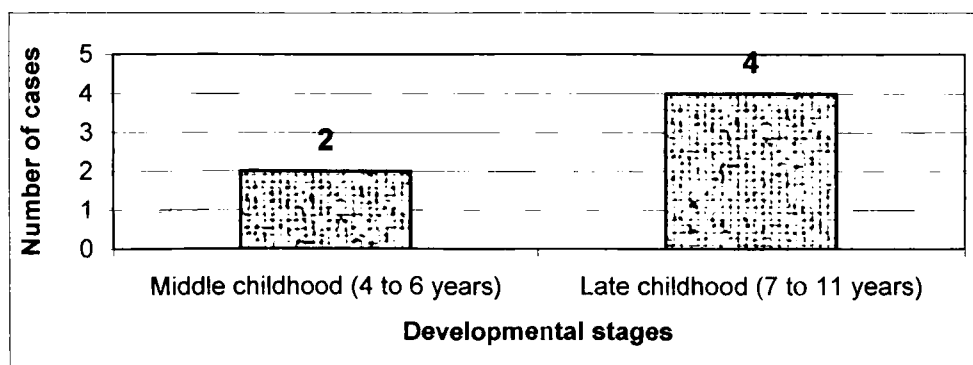
Code of the name	Age in years	Gender	Birth history	Birth order	Education	Positive history of the family
P1	8.3	Female.	Caesarean.	1/2	Class-I.	Absent.
P2	5.5	Male.	Caesarean.	1/1	KG-I.	Absent.
P3	8.9	Female.	Caesarean.	3/3	Class-III.	Present.
P4	10.8	Male.	Normal.	1/2	Class-V.	Present.
P5	10.5	Male.	Caesarean.	2/3	Class-III.	Present.
P6	5.6	Female.	Caesarean.	3/3	Didn't continued school.	Present.

The table- 3.13 described about the demographic condition of the participants. It showed that the age range of the cases was among 5.5 to 10.8 and their mean of the age was 8.26 years, among them 3 were female child and 3 were male child. Among the 6 participants, 3 were first child, 2 were last child and 1 was middle child of their family. Most of the cases were school going except 1 case did not continued her school. The table 3.7 also indicated that most of the participants were born by suzerain and only 1 case was born by normal delivery. Among the 6 participants 4 cases had positive history of the family and rest of 2 cases had not found any history of enuresis within their family.

Table-3.14: Demographic findings of the participant's parental status.

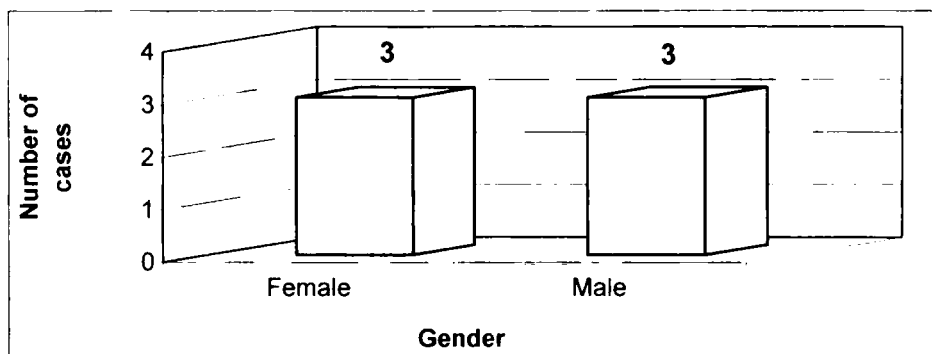
Code	Father			Mother			Monthly Income
	Age in years	Education	Occupation	Age in years	Education	Occupation	
P1	39	MSS	Service	31	MA	Housewife	15000
P2	42	SSC	Business	30	SSC	Housewife	7500
P3	45	BA	Business	35	HSC	Housewife	20000
P4	37	BA	Business	29	Dakhil	Housewife	30000
P5	42	HSC	Business	34	HSC	Housewife	20000
P6	42	HSC	Business	33	HSC	Housewife	20000

The table-3.14 described the parental status of the participants. It revealed that the age range of the fathers of participants were 37 to 45 years and their mean of the age was 41.2 years, the educational qualification of them, only 1 father was completed MSS, 2 fathers were completed BA and 2 fathers were completed HSC and rest of the father completed SSC. Most of the fathers of the cases were businessman and only 1 father was service holder. The table-3.8 also point out that the age range of the mothers of participants was 30-35 years and their mean of the age was 32 years. The educational qualification of them, only 1 mother was completed MA, 3 mothers were completed HSC, 1 mothers were completed Dakhil and rest of the mother completed SSC. All of the mothers of the cases were housewife. The table- 3.8 also indicated that most of the cases monthly income was near about 20000/- Taka and only 1 case income was 30000/- Taka and 1 cases income was 7500/-Taka.

Figure-3.19: Demographic findings: Developmental stages of the participants.

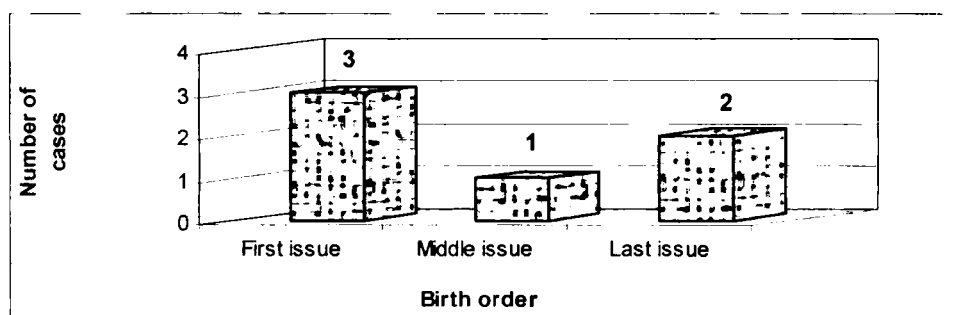
The figure-3.19 demonstrated that among the 6 participants 4 of the cases fall on late childhood that age range was 7 to 11 years and 2 of the cases fall down middle childhood which ranges was 4 to 6 years.

Figure-3.20: Demographic findings: Gender of the participants.



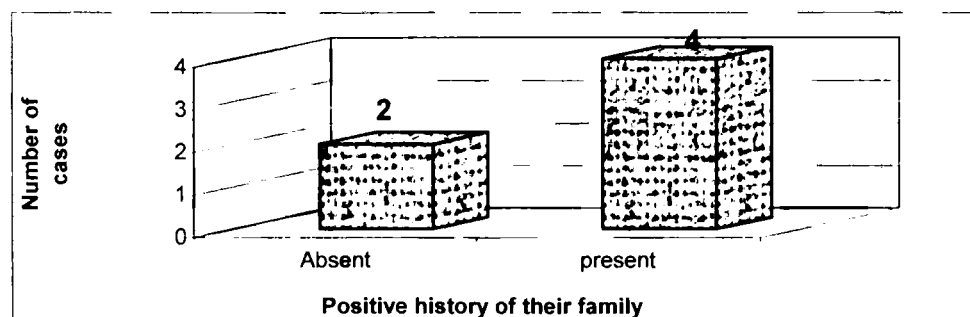
The figure- 3.20 indicated that among the 6 participants 3 were male child and rest of 3 were female child. According to gender, all the participants were equal number.

Figure-3.21: Demographic findings: Birth order of the participants.



The figure-3.21 showed that among the 6 participants 3 of the cases were first born child or issues, 1 of the cases were middle born child or issues and 2 of the cases were last born child or issues of their parents.

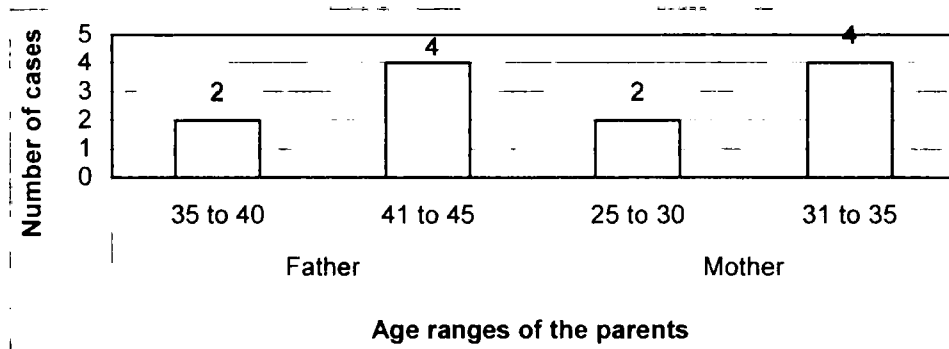
Figure-3.22: Demographic findings: Participants and the presence of positive history of their family.



According to the figure-3.22 indicated that among the 6 participants, the number of

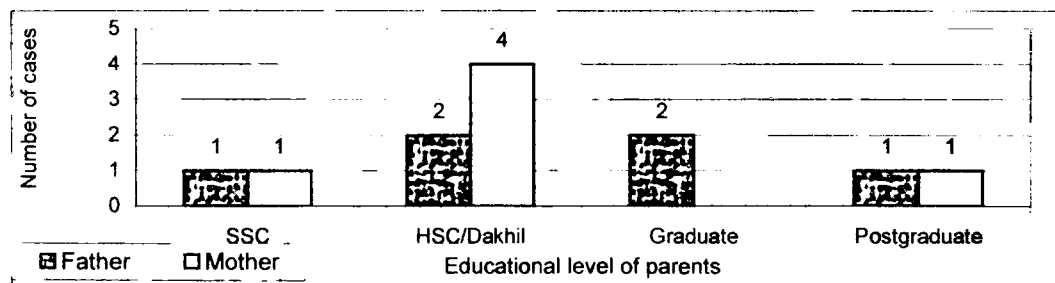
the 4 cases had present of the positive enuresis history of their family and rest of 2 had not present of the positive history of their family.

Figure-3.23: Demographic findings: Participants and the age range of their parents.



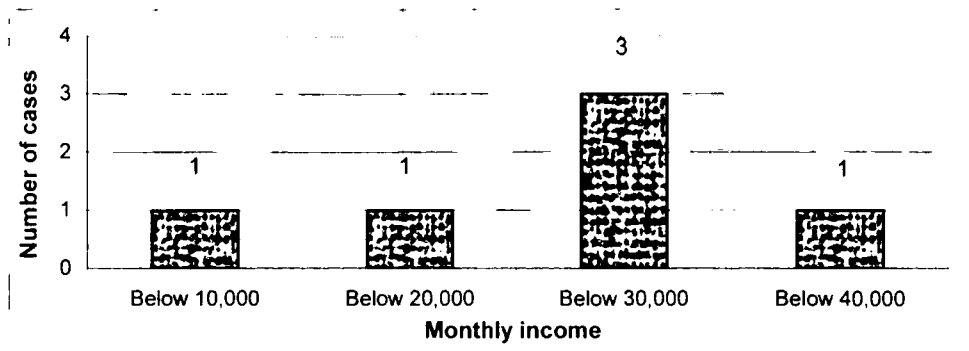
The figure 3.23 described the age range of the parents of the number of six participants. It showed that among the 6 cases, father of 2 cases were belong to 35 to 40 years and father of 4 cases fall down 41 to 45 year age range. It also indicated that the age range of the mother of 2 cases were 25 to 30 and 4 cases were 31 to 35.

Figure-3.24: Demographic findings: Number of Participants and the educational level of their parents.



The figure-3.24 described the educational status of the parents of 6 participants. It demonstrated that the HSC level was completed the number of 2 case's father, SSC completed number of 1 father among six and the number of 1 father completed postgraduate level and graduate level were completed by the number of 2 fathers. The figure-3.24 also showed that the mothers of 4 cases were completed HSC or its equivalent degree and the mother of 1 case was completed SSC and rest of 1 completed Postgraduate level.

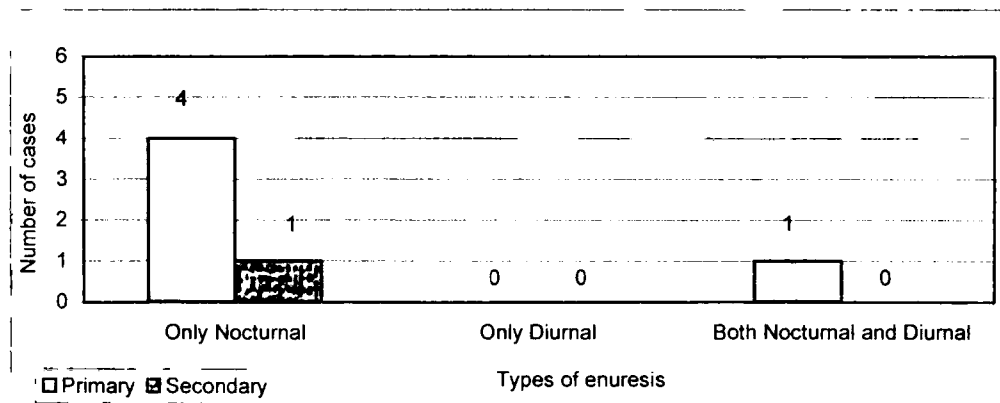
Figure-3.25: Demographic findings: Number of Participants and their monthly income of parents.



The figure-3.25 indicated that the number of 3 cases monthly income were below 30,000/ Taka, 1 case had below 10,000/ Taka and 1 case had below 20,000/ Taka and rest of 1 had below 40,000/ Taka monthly income. So, most of the cases come from different income groups.

2. Description of the Problem:

Figure-3.26: Problem findings of the participant's condition.



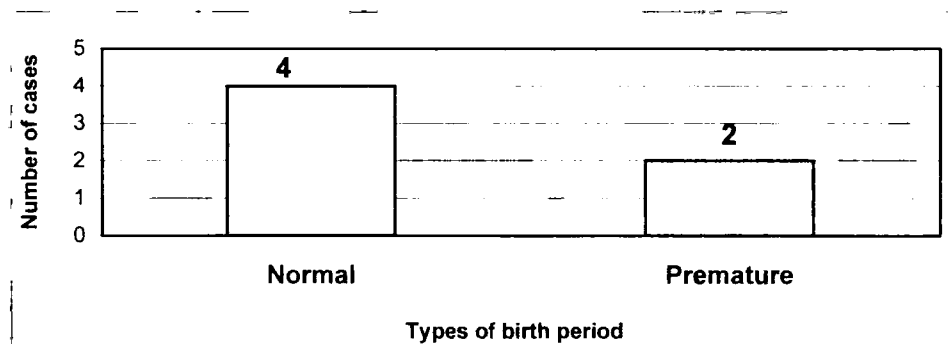
The figure- 3.26 demonstrated that among the 6 cases only 1 had primary both nocturnal and diurnal enuresis and 4 had primary nocturnal enuresis and the last 1 had secondary nocturnal enuresis.

Table-3.15: Findings of the problem incidence of the participants.

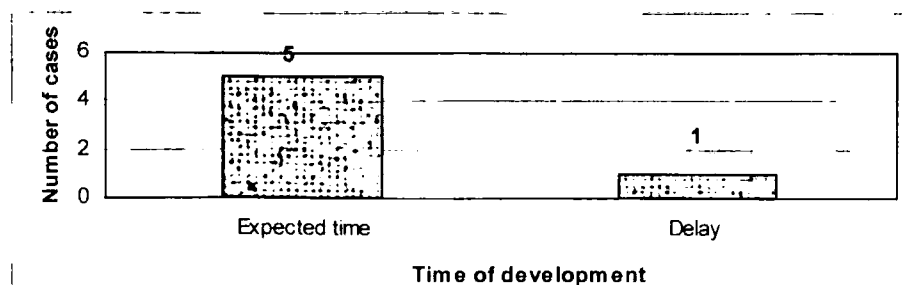
Types of enuresis	Incidence of wetting within 7 days	Number of cases
Diurnal	3	1
Nocturnal	10	1
	7	1
	6	2
	5	2

The table-3.15 displayed that the number of 1 case among the 6 had 3 incidence of diurnal enuresis within 7 days, 1 case also had 10 incidences of nocturnal enuresis and 1 case had 7 incidence of nocturnal enuresis. Furthermore, 2 cases had 6 and rest of 2 cases had 5 incidence of nocturnal enuresis.

3. Problem Related Information:

Figure-3.27: Finding of birth period and the participants.

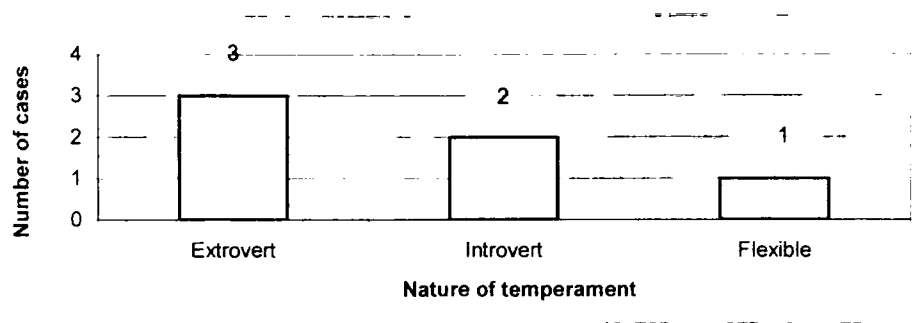
The figure-3.27 showed that among the 6 cases, the number of 4 cases were born in due time of their birth and the rest of 2 cases were prematurely born from their birth time.

Figure-3.28: Finding of development and the participants.

The figure 3.28 indicated that among the 6 participants, 5 cases had passed their

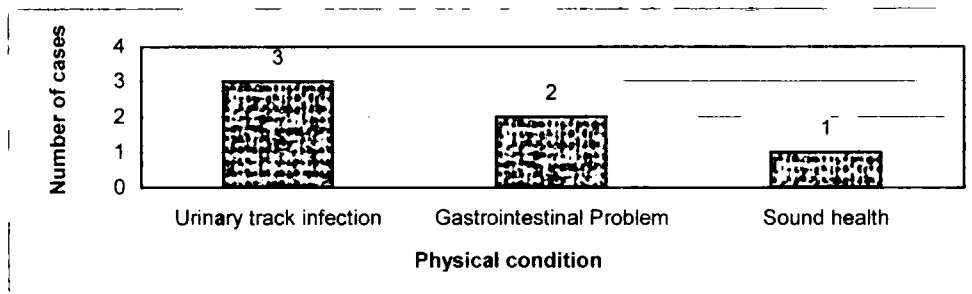
developmental stages on expected time consistent with other child of their age and only 1 among the 6 had delay according to other children of her age.

Figure-3.29: Findings of the nature of temperament of participants.



The figure-3.29 manifestation that among the 6 cases, 3 had extrovert, 2 had introvert and least 1 had flexible nature of temperament.

Figure-3.30: Findings of general physical condition and the participants.



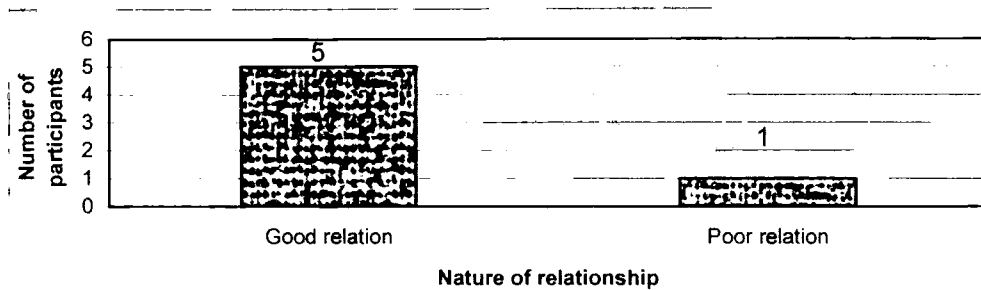
The figure-3.30 displayed that among the 6 participants, the number of 3 had history of urinary track infections, the number of 2 cases had gastrointestinal problem and least of 1 case had history of sound health.

Table-3.16: Findings of academic performance of the participants.

Academic performance	Number of cases (n)
Excellent results	2
Average results	2
Poor results	1
Did not continued school	1
N = 6	

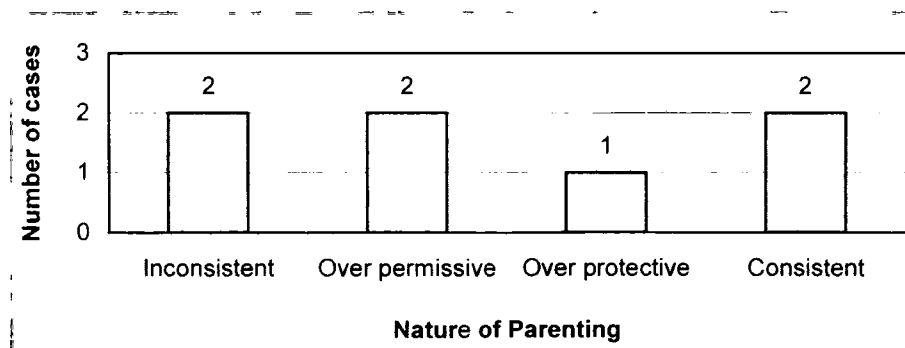
The table-3.16 revealed that among the 6 participants, 2 of them had a history of excellent results, 2 had average results and 1 had poor results in their class. However, 1 of the 6 cases had not continued school.

Figure-3.31: The natures of relationship with the family member and the participants.

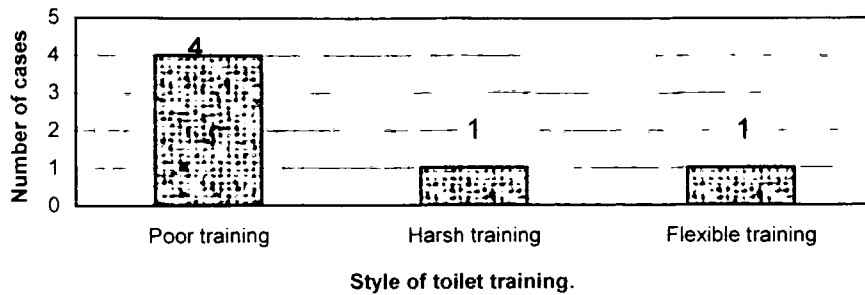


The figure-3.31 exposed that the nature of relationship among the 6 cases, 5 had good understandings with family members and 1 had poor relation with their family members.

Figure-3.32: Findings of parenting style and the participants.



The figure-3.32 displayed that nature of parenting style among the 6 participants, inconsistent parenting was found within 2 cases, the number of 2 cases had over permissive parenting and 1 case had over protective parenting. However, 2 of out of 6 had consistent parenting style.

Figure-3.33: Findings toilet training style and the participants.

The figure-3.33 showed that toilet training style among the 6 participants, the number of 4 cases had poor training experienced, the number of 1 case had harsh training experienced and least of 1 had flexible toilet training practiced.

Table-3.17: Comparison among the Baseline Bedwetting Frequencies of the participants and Scores of Toilet Training Practice Scale of their parents.

Code	Bedwetting Frequency on Baseline Assessment Session		Scores of Toilet Training Practice Scale.
	Aa (7days)	Ab (7 days)	
P1	10	11	47 (laziness)
P2	5	6	26 (Harshness)
P3	6	6	42 (Laziness)
P4	6	5	49 (Laziness)
P5	5	5	42 (Laziness)
P6	7	6	36 (Balanced)

The Table-3.17 disclose that the relation of toilet training practice scale scores of their parents and bedwetting frequencies of both baseline Aa, Ab of the all participants, the duration of both baseline were 7 days. P1's parental toilet training practice scale score was 47 and her bedwetting frequency were 10 on baseline Aa, 11 on baseline Ab, so that the figure indicated poor toilet training was brings negative impact on P1. P2's parental toilet training practice scale score was 26 and his bedwetting frequency were 5 on baseline Aa, 6 on baseline Ab, so that the figure-3.34 point out harsh toilet

training was brings also negative impact on P2. P3's parental toilet training practice scale score was 42 and her bedwetting frequency were 6 on baseline Aa, 6 on baseline Ab, so that the data indicated poor toilet training was brings also negative impact on P3. P4's parental toilet training practice scale score was 49 and her bedwetting frequency were 6 on baseline Aa, 5 on baseline Ab, so that the figure indicated poor toilet training was brings negative impact on P4. P5's parental toilet training practice scale score was 42 as well and her bedwetting frequency were 5 on baseline Aa, 5 on baseline Ab, so that the figure indicated poor toilet training was brings quite negative impact on P5. P6's parental toilet training practice scale score was 36 and her bedwetting frequency were 7 on baseline Aa, 6 on baseline Ab, but the data indicated flexible toilet training could not brings positive impact on P6.

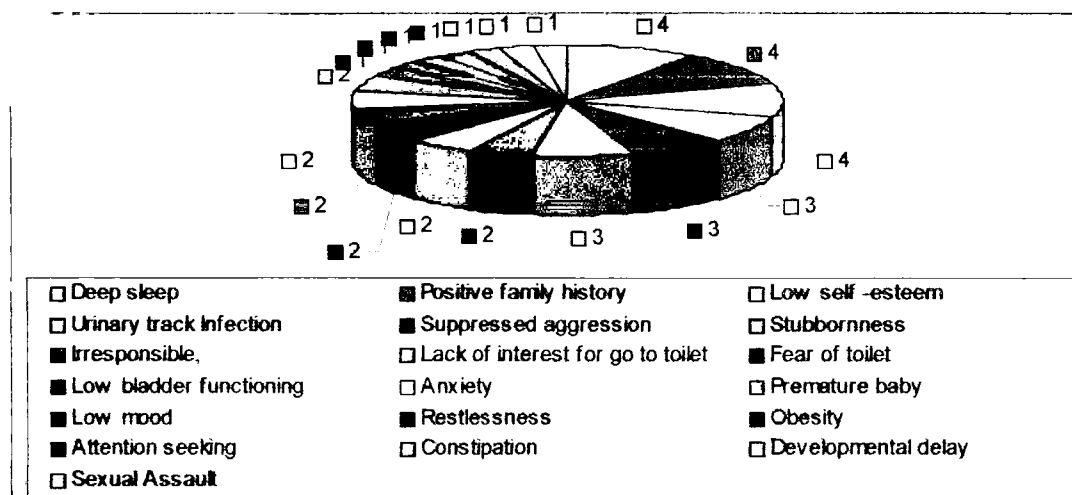
4. Contributing Factors of Enuresis:

Table-3.18: Findings of Individual Factors and the participants.

Individual Factors	Number of case (n)	%
Deep sleep	4	66.66%
Positive family history	4	66.66%
Low self -esteem	4	66.66%
Urinary track Infection	3	50%
Suppressed aggression	3	50%
Stubbornness	3	50 %
Irresponsible,	2	33.33%
Lack of interest for go to toilet	2	33.33%
Fear of toilet	2	33.33%
Low bladder functioning	2	33.33%%
Anxiety	2	33.33%
Premature baby	2	33.33%
Low mood	1	16.66%
Restlessness	1	16.66%
Obesity	1	16.66%
Attention seeking	1	16.66%
Constipation	1	16.66%
Developmental delay	1	16.66%
Sexual Assault	1	16.66%
N= 6		

The table-3.18 described about the findings of individual factors that contributing enuresis problem within 6 participants. The table-3.12 demonstrated that among the 6 participants; deep sleep, positive family history and low self-esteem were contributing important role in 66.66% cases; urinary track infection, stubbornness and suppressed aggression also played an important role in 50% cases and in 33.33% cases, irresponsible behaviours, lack of interest for go to toilet, fear of toilet, anxiety and premature birth, low bladder functioning were playing important role also. Beside this, in 16.66% cases low mood, constipation, obesity, restlessness and developmental delay, attention seeking behaviour and sexual assaults had contributed significant role on enuresis problem.

Figure-3.34: Findings of contributing individual factors of enuresis and the number of cases.

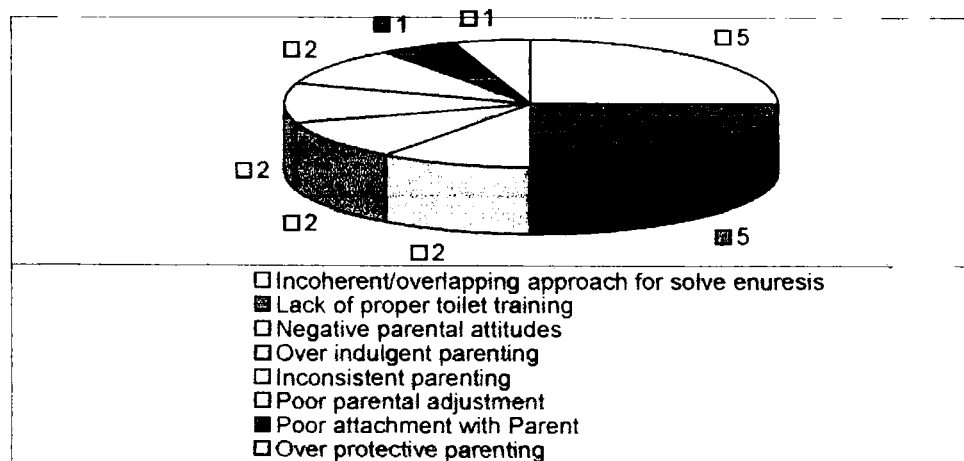


The figure-3.34 demonstrated that the number of 4 participants among the 6 had positive family history of enuresis, deep sleep and low self-esteem, so that these factors take major portion of the pie. Out of 3 within 6 cases had urinary track infection, suppressed aggression and stubbornness, the number of 2 cases among the 6 had irresponsibleness, premature birth history, lack of interest for go to toilet and anxiety low bladder functioning and fear of toilet. Low mood, restlessness, obesity, attention seeking behaviour and constipation, developmental delay and sexual assaults were found within number of 1 among 6 cases.

Table-3.19: Findings of Interpersonal Factors and the participants.

Interpersonal factors	Number of case (n)	%
Incoherent/overlapping approach for solve enuresis	5	83.33%
Lack of proper toilet training	5	83.33%
Negative parental attitudes	2	33.33%
Over indulgent parenting	2	33.33%
Inconsistent parenting	2	33.33%
Poor parental adjustment	2	33.33%
Poor attachment with Parent	1	16.66%
Over protective parenting	1	16.66%
N = 6		

The table-3.19 described about the findings of interpersonal factors that contributing enuresis problem within 6 participants. The table-3.13 demonstrated that among the 6 participants; using incoherent or overlapping approaches and poor toilet training were contributing a very important role in interpersonal relations with in 83.33% cases; parenting styles such as inconsistency and over permissiveness, poor parental adjustment were also played significant role within 33.33% cases and as well as negative parental attitudes, over protective parenting, poor attachment with parent were made considerable function within 16.66% cases.

Figure- 3.35: Findings of contributing interpersonal factors of enuresis and the number of cases.

The figure-3.35 found that major portion of the pie were poor toilet training and applied incoherent approaches, which revealed that the number of 5 cases among 6

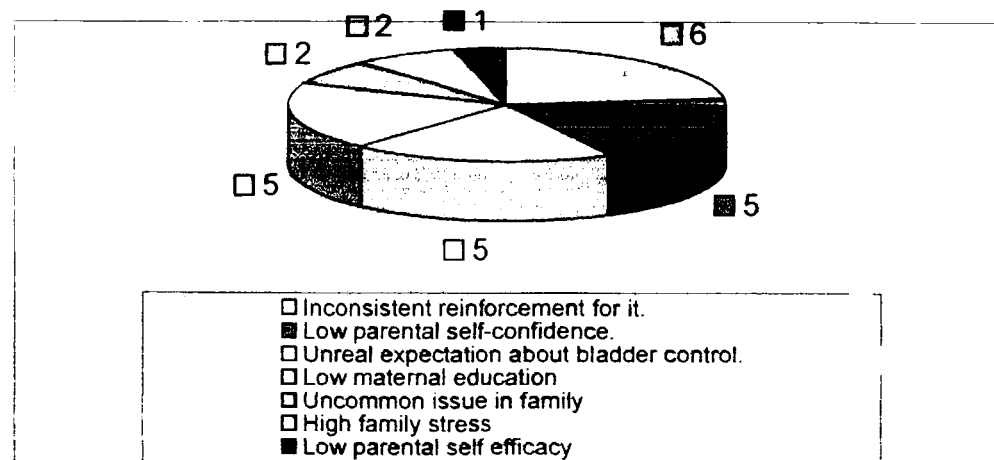
had these factors, then next significant portion were poor parental adjustment, over indulgent and inconsistent parenting and negative parental attitudes. Besides, the lowest portion was poor attachment with parent and over protective parenting style.

Table-3.20: Findings of Contextual Factors and the participants.

Contextual Factors	Number of case (n)	%
Inconsistent reinforcement for it.	6	100%
Low parental self-confidence.	5	83.33%
Unreal expectation about bladder control.	5	83.33%
Low maternal education	5	83.33%
Uncommon issue in family	2	33.33%
High family stress	2	33.33%
Low parental self efficacy	1	16.66%
N = 6		

The table-3.20 described the contextual factors which contributing enuresis problem among the 6 participants. The table presented that inconsistent reinforcement for enuresis was found in 100% cases. Besides, low parental confidence, low maternal education and parental unreal expectation about the bladder control were found in 83.33% cases and high family stress, uncommon issue within family were observed in 33.33% cases as well as low parental self efficacy was located in 16.66% cases.

Figure-3.36: Findings of contributing contextual factors of enuresis and the number of cases



The figure-3.36 found that major portion of the pie was inconsistent reinforcement for enuresis, which revealed that all of the 6 cases had this factor. It also showed that low

parental confidence, low maternal education and unreal expectation takes second highest portion and uncommon issue and high family stress was also taking next large portions. As well as lowest portion of the pie was low parental self-efficacy that was found only 1 case out of 6.

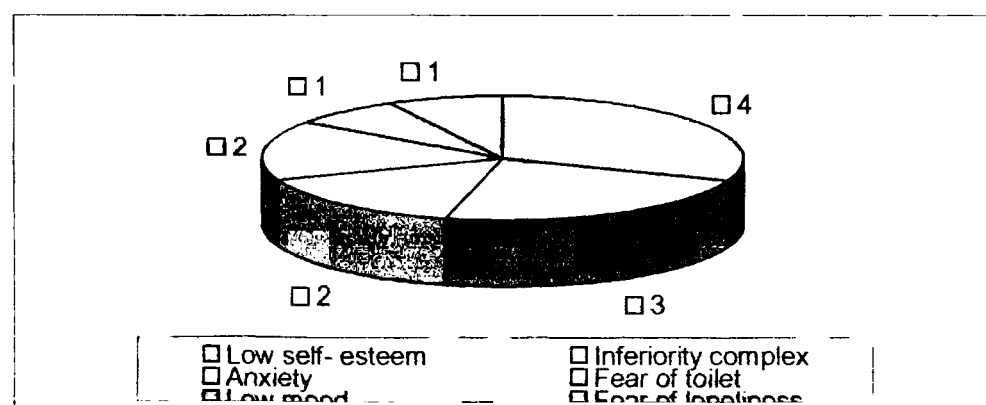
5. Impact of Enuresis:

Table-3.21: Emotional impacts of enuresis on the participants.

Emotional difficulties	Number of Cases (n)	%
Low self- esteem	4	66.66%
Inferiority complex	3	50%
Anxiety	2	33.33%
Fear of toilet	2	33.33%
Low mood	1	16.66%
Fear of loneliness	1	16.66%
N = 6		

The table-3.21 described that impact of enuresis on the participants' emotional reactions. This table presented that low self-esteem was impacted upon 66.66% cases, inferiority complex was also seen upon 50% cases and in 33.33% cases fear of toilet and anxiety were seen. Besides the table, it shown that in 16.66% cases low mood and fear of loneliness were found.

Figure-3.37: Proportions of the cases through emotional difficulties.



The figure-3.37 disclosed that major proportion of the emotional difficulties pie was taken low self- esteem, which indicated that it was effect on maximum cases. The second highest portion was occupied by inferiority complex; the next similar two

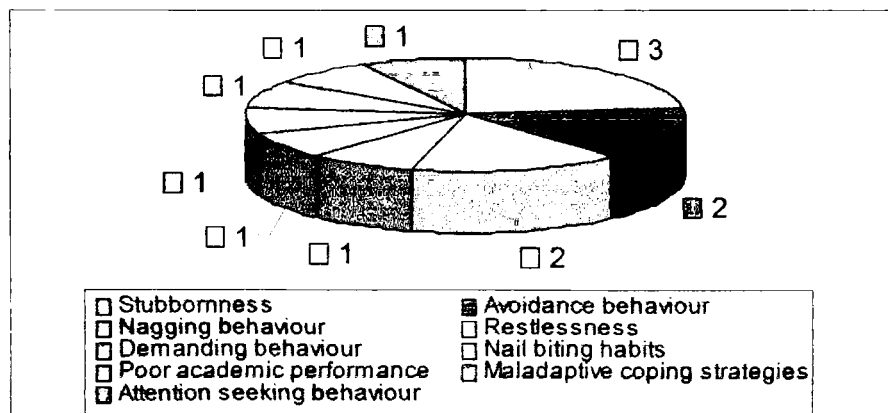
portions were taken by anxiety and fear of toilet. The least two smallest portion of the emotional difficulties pie were taken low mood and fear of loneliness.

Table-3.22: Behavioural impacts of enuresis on the participants.

Problem behaviour	Number of Cases (n)	%
Stubbornness	3	50%
Avoidance behaviour	2	33.33%
Nagging behaviour	2	33.33%
Restlessness	1	16.66%
Demanding behaviour	1	16.66%
Nail biting habits	1	16.66%
Poor academic performance	1	16.66%
Maladaptive coping strategies	1	16.66%
Attention seeking behaviour	1	16.66%
N = 6		

The table-3.22 described that impact of enuresis on the participants' behaviours. This table presented that stubbornness was impacted upon 50% cases; avoidance and nagging behaviours were also seen in 33.33% cases. Besides the table show that in 16.66% cases, restlessness, demanding behaviour, nail biting and attention seeking behaviours, maladaptive coping strategies as well as poor academic performance were found.

Figure-3.38: Proportions of the cases throughout problem behaviours.



The figure-3.38 disclosed that major proportion of the problem behaviour pie was taken stubbornness, which specifies that it was effect on majority of the cases. The

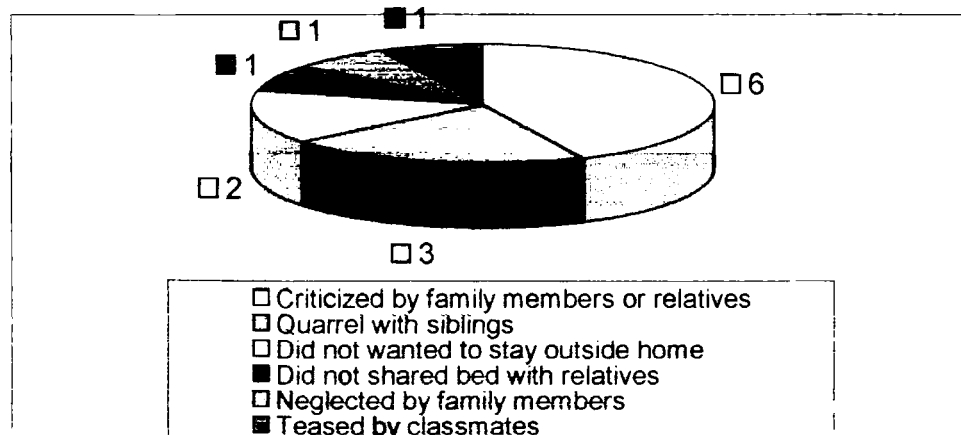
next similar two portions were taken by Avoidance behaviour and nagging pattern. The six smallest portion of the problem behaviour pie were taken restlessness, demanding behaviour, nail biting and attention seeking behaviours, maladaptive coping strategies and poor academic performance.

Table-3.23: Social impacts of enuresis on the participants.

Difficulties in social life	Number of Cases (n)	%
Criticized by family members or relatives	6	100%
Quarrel with siblings	3	50%
Did not wanted to stay outside home	2	33.33%
Did not shared bed with relatives	1	16.66%
Neglected by family members	1	16.66%
Teased by classmates	1	16.66%
N = 6		

The table-3.23 expressed that impact of enuresis on the participants' social and family life. This table presented that family member or relatives criticized in more or less 100% cases; quarrel with sibling was also seen in 50% cases and did not wanted to stay outside home at night was also found in 33.33% cases. Besides the table shown that in 16.66% cases did not share bed with relatives or others, neglected by family members as well as teased by classmates or peer were located.

Figure-3.39: Proportions of the cases throughout the difficulties in social life.



The figure-3.39 reveal that major proportion of the social difficulties pie was taken criticized by family members or others relatives, which indicated that it was effect on

maximum cases. The second highest portion was occupied quarrel with siblings; the nearest portions was taken by did not wanted to stay outsides. Then the smallest three portions of the emotional difficulties pie were taken avoid to share bed, negligence and teased by peer, so that it also disclosed that these was impacted upon minimum cases.

6. Treatment Implementation:

Table-3.24: The findings of Implementation of the psychological management for enuresis and the participants.

Psychological Intervention	Purpose of Using	Number of Case (n)	%
Psychoeducation	Educated and awareness built up.	6	100%
Reward system	Motivated the case to involve in treatment.	6	100%
Schedule wakening	Habituated to visit toilet and reduced bedwetting	5	83.33%
Cleanliness training	Grown-up responsibility	5	83.33%
Role play	Encouraged the case to involve in treatment.	2	33.33%
Fluid restriction	Reduced drinking extra fluid before bed.	2	33.33%
Dry bed training	Reducing bedwetting behaviour within short period	3	50%
Retention control training	Preventing relapse	5	83.33%
Over learning training	Preventing relapse	6	100%
N=6			

The Table-3.24described about implemented psychological intervention for enuresis, purpose of using and the number of cases as well as percentages of cases. From the table, it would be assumed that psychoeducation; reward system and over learning training were given in 100% cases for built up knowledge about enuresis; motivated the cases to involve themselves in treatment and preventing relapse. In 83.33% cases, schedule wakening; cleanliness training and retention control training were provided for grow-up habit to visit toilet; grown-up responsibility and preventing relapse. Dry bed training was given for reducing enuresis within short duration in 50% cases. In 33.33% cases, fluid restriction and role-play were provided for reducing to take extra fluid before bedtime at night and encouraged to involve themselves in treatment.

Table-3.25: The findings of Implementation of the psychological management for enuresis related other problems and the participants.

Psychological Intervention	Purpose of Using	Number of case (n)	%
Psychoeducation	Awareness built-up	6	100%
Problem solving skill	Solving real life problem	4	66.66%
Pros and cons	Decision making and modifying themselves	4	66.66%
When-then rules	Modifying maladaptive behaviour	4	66.66%
Praise and ignore formula	Modifying maladaptive behaviour	2	33.33%
A-B-C	Educated about cause-effect relation	2	33.33%
Staircase to success	Modifying maladaptive behaviour	2	33.33%
Role-play	Motivating to change themselves	3	50%
Star chart and reward system	Encouraging to modify themselves	5	83.33%
Systematic desensitisation	Reducing fear	2	33.33%
Relaxation	Try to relax	3	50%
Habit reversal training	Reducing nail biting habit	1	16.66%
Focusing positive	Reducing negative thought	1	16.66%
Social skill training	Developing social skill	1	16.66%
Behavioural experiment	Acceptance the problem	1	16.66%
N = 6			

The table-3.25 described about the percentage of usage of psychological interventions for enuresis related other psychological problems. The table disclosed that psychoeducation was given in 100% cases for awareness built-up regarding different enuresis related problem. Star chart and reward system were used for encouraged to modifying themselves in 83.33% cases. In 66.66% cases, problem solving techniques; when-then rules and pros & cons were applied for real life problems; help to make decision to modify them and help to modify their maladaptive behaviours. Relaxation and role-play were used for help them to be relax and motivating to change themselves in 50% cases. In 33.33% cases, A-B-C; systematic desensitisation and praise and ignore formulas; staircase to successes were used for educated about cause-effect relationship; reducing fear and modifying maladaptive behaviour. Besides, for reducing nail biting, reducing negative thought and developing social

skill as well as acceptance the problem, habit reversal training, focusing positive and social skill training as well as behavioral experiment were given in 16.66% cases.

7. Outcome of the treatment:

Table-3.26: Outcome Findings of the Psychological Management: Individual Factors and its changes after Psychological management.

Individual Factors	Baseline Condition	Outcome Condition
Low self-esteem	No idea about owns self. (n=4)	Realised about own self and confidant. (n=4)
Urinary track Infection	Not aware about it. (n=3)	More aware and take preventive measures. (n=3)
Suppressed aggression	Expressed it in a maladaptive way. (n=3)	Try to express it in a positive way. (n=2)
Stubbornness	Most of the day. (n=3)	Try to realise the situations. (n=3)
Irresponsible,	Did not take any responsibility. (n=2)	Take self-responsibilities. (n=2)
Lack of interest for go to toilet	Did not want to visit toilet willingly. (n=2)	Willingly visit the toilet. (n=2)
Fear of toilet	Did not visit toilet with the help of other. (n=2)	Visit the toilet independently. (n=2)
Low bladder functioning	Could not capable to hold urine. (n=2)	More capable to hold urine. (n=2)
Anxiety	Anxious about bedwetting. (n=2)	More relax (n=2)
Restlessness	Most of the time behaves restless. (n=1)	Quite relax. (n=1)
Low mood	Most of the time felt sad and avoid situation. (n=1)	Try to face situation and felt quite happy. (n=1)
Attention seeking behavior	Most of the times seek attention of others. (n=1)	Try to overcome. (n=1)
Constipation	Not aware about it. (n=1)	More aware and take preventive measures. (n=1)
Sexual Assault	Not aware about it. (n=1)	More aware about it. (n=1)

The table-3.26 described about the comparison between the baseline and outcome condition of problematic individual factors among the number of 6 cases. Through the table, it would be assumed that most of the problematic factors were changed after interventions

Table-3.27: Outcome Findings of the Psychological Management: Cognitions and its changes after Psychological management.

Pre- Intervention	Post-Intervention
'I am not capable as others.' (n=6)	'Now, I am capable of holding my urine night time, just like others'. (n=6)
'I may not be able to solve this' (n=6)	'Really, I solve my problem.' (n=5)
'I cannot stay outside home as my cousins.'(n=2)	'I can stay outside home like my cousins.'(n=2)
'I am not allowed to sleep with my mother, because of bedwetting'. (n=1)	'Now, I sleep with my mother'. (n=1)
'I am a loser.'(n=1)	'I am a winner'. (n=1)
'I am not absolutely good for bed wetting.'(n=4)	'Now I am absolutely good.'(n=3)
'My mother doesn't love me for this problem.'(n=1)	'My mother loves me.'(n=1)
'I am a foolish child than others'. (n=5)	'Now I am a clever child'. (n=4)
'Everybody laugh at me for bedwetting.'(n=4)	'Now nobody can laugh at me for this.' (n=3)
'I will have to sleep on oilcloth throughout my whole life.'(n=5)	'Now I am capable to sleep without oilcloth.'(n=5)

The table-3.27 described the cognitions of pre-intervention and post-intervention about own self, others and own future. This table disclosed that in most of the cases, pre-treatment negative cognitions of were changed into positive cognitions after treatment but few of the cases it were not changed absolutely positive.

Table-3.28: Outcome Findings of the Psychological Management: Interpersonal Factors and its changes after Psychological management.

Interpersonal factors	Baseline Condition	Outcome Condition
Incoherent/overlapping approach for solve enuresis	Usually applied it. (n=5)	Most of the time using consistent psychological approaches. (n=4)
Over indulgent parenting	Most of the time parents allowed child's' demand. (n=2)	Try to help their child to realise the situation. (n=1)
Inconsistent parenting	Belonging inconsistent communicate with child. (n=2)	More consistent and try to utilised more time with child. (n=2)
Poor parental adjustment	More conflicts and fights belong within parents. (n=2)	Less conflict belonging within parents. (n=2)
Poor attachment with Parent	Distance with parents. (n=1)	More attached with child. (n=1)
Over protective parenting	All the time, try to protect(n=1)	Not changed
Conflicting relation with siblings	More conflict and fighting with sibling.(n = 3)	Quite less fighting and conflict than before. (n =3)

The table –3.28 described about the comparison between the baseline and outcome

condition of problematic interpersonal factors among the number of 6 cases. Among the 6 interpersonal factors, most of the factors were changed after treatment but in 1 case over protective and over indulgent parenting styles were not changed.

Table-3.29: Outcome Findings of the Psychological Management: Parental Attitudes and its changes after Psychological management.

Case	Baseline	Outcome		
	Aa	A1	A2	A3
P1	38 (Negative)	28 (Normal)	26 (Normal)	24 (Normal)
P2	31 (Normal)	25 (Normal)	25 (Normal)	24 (Normal)
P3	40 (Negative)	31 (Normal)	28 (Normal)	-
P4	41 (Negative)	41 (Negative)	37 (Negative)	-
P5	41 (Negative)	32 (Normal)	25 (Normal)	26 (Normal)
P6	31 (Normal)	25 (Normal)	20 (Positive)	19 (Positive)

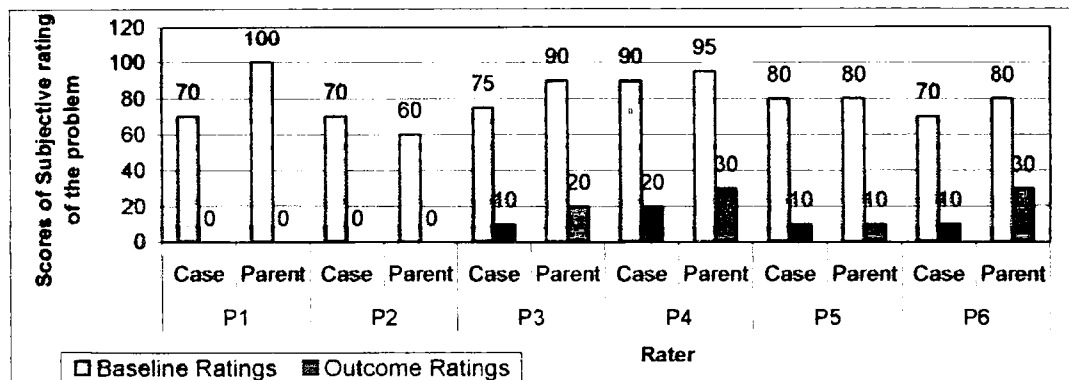
The table-3.29 described about the changes on parental attitude through the scores of Attitudes towards Enuresis scale. This table indicated that among the 6 cases, during the baseline session (Aa) the scores of Attitudes towards Enuresis were normal in the Parent of 2 cases and 4 were negative scores. In outcome session (A1), the number of 5 cases' parental scores of this scale was normal, and 1 case remained negative. In A2 session, the number of 4 cases was normal and 1 case was positive scores and another 1 case was still negative score. In the last session (A3), the parents of 3 cases were remained normal scale scores, 1 case's parents scale score was positive and the number of 2 cases could not fill up the scale.

Table-3.30: Outcome Findings of the Psychological Management: Contextual Factors and its changes after Psychological management.

Contextual Factors	Baseline Condition	Outcome Condition
Inconsistent reinforcement	Most of the time parents gave negative reinforcement.(n= 6)	Try to give positive reinforcement for accepted behaviour. (n=5)
Criticized family environment	More or less experienced criticism by family member.(n=6)	Quite understanding and supportive. (n=6)
Low parental self-confidence.	Parents had not confident about child's progress. (n= 5)	Parents get confidence about their child and treatment. (n =4)
High family stress	Parents did not handle stressful situation effectively. (n= 2)	At present of the cases try to handle positively and successfully. (n=2)
Teasing school environment	Most of the time patient heard it passively. (n=1)	At present patient try to assertively share own feelings. (n=1)
Neglected	Most of the time parents and family member did it without concern about its impact. (n=1)	Parents more concern and not show any neglect. (n=1)

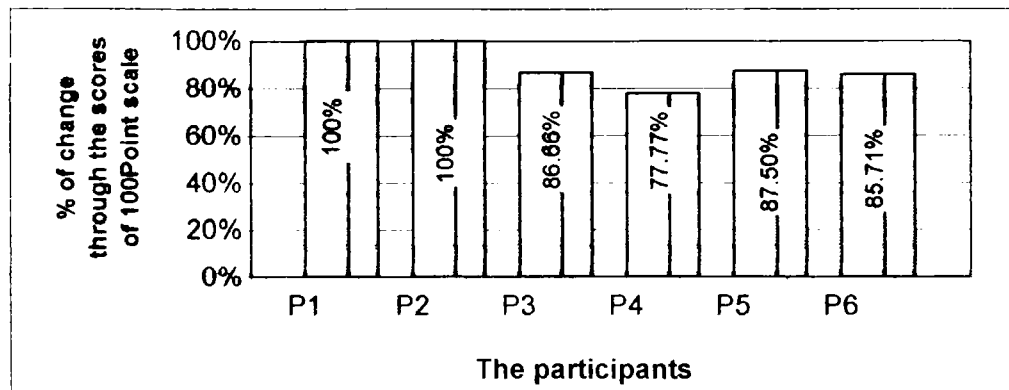
The table-3.30 described about the comparison between the baseline and outcome condition of problematic contextual or environmental factors among the number of 6 cases. Among these contextual factors, in most of the cases some of the factors such as criticized family environment were totally changed after treatment and in 1 or 2 cases some of factors such as inconsistent reinforcement and low parental confidence were not changed.

Figure-3.40: Outcome Findings of the Psychological Management: Subjective rating of the present condition bedwetting and its changes after Psychological management.



The table-3.40 displayed that among the 6 cases, during baseline session the number of 3 cases rated their problem were 70% and in 1 case rated as 75%, another 1 case rated 80% and other 1 rated 90% problem. During the outcome condition, the number of 2 cases rated their enuresis problem 0% than previous, in 3 cases rated 10% and the number of 1 case rated his condition 20%. The figure also show that during the baseline session, maximum parent rated their child's enuresis problem from 100% to 60% but the range of their subjective rating were changed in outcome session and then they rated from 30% to 0%.

Figure-3.41: Outcome Findings of the Psychological Management: Percentage of change through the Patients' Scores of 100 point rating scale.



The figure-3.41 showed that among the 6 cases, the number of 2 cases had 100%, the number of 1 had 87.50% and another 1 had 86.66%, the last 1 case had 77.77% improvement.

Table-3.31: Outcome Findings of the Psychological Management: Percentage of change through the Frequency of Bedwetting and Combination of Implemented Psychological Intervention.

Combinations of implemented treatment	Pre score-Post score % Of change = $\frac{\text{Pre score} - \text{Post score}}{\text{Pre score}} \times 100$					
	P1	P2	P3	P4	P5	P6
Only psychoeducation (n=1)	-	-	-	-	20%	-
Schedule awakening + Cleanliness Training + Reward System. (n=1)	-	-	-	-	50%	-
Psychoeducation + Schedule awakening + Cleanliness Training + Reward System. (n=1)	-	60%	-	-	-	-
Psychoeducation + Role play + Schedule awakening + Cleanliness Training + Reward System. (n=2)	Nocturnal enuresis=60% Diurnal=66.67%	-	-	-	-	57.14%
Only Retention control Training. (n=1)	Nocturnal enuresis=25 % Diurnal=100 %					
Retention control Training + Fluid restriction. (n=2)		100%				66.67%
Schedule awakening + Cleanliness Training + Retention Control Training. (n=1)	-	-	-	66.67%	-	-
Only Dry Bed Training. (n= 1)	66.67%					
Psychoeducation + Dry Bed Training + Reward System. (n=2)	-	-	83.33%	50%	-	-
Over-Learning Training + Reward System. (n=6)	-66.67 %	-9%	-33%	89%	0%	12.15%

The table-3.31 described about the findings of the percentages of change through bedwetting frequency and the combinations of psychological intervention. This table indicated that only psychoeducation brought change 20% in 1 case but the combination of psychoeducation, schedule awakening and cleanliness training, reward system in 1 case brought 60% changed or improvement whereas within 2 cases the combination of psychoeducation, role play and schedule awakening, cleanliness training and reward system brought improvement in 1 case 60% on nocturnal and 66.67% on diurnal enuresis also in 1 case the changed was 57.14% on nocturnal enuresis. When the combination of schedule awakening, cleanliness training and reward system was applied in 1 case among 6, then it brought change

50%. While only retention control training was applied on 1 case then it brought 100% changed on diurnal enuresis and 25% on nocturnal enuresis. However, the combination of retention control training and fluid restriction were applied on 2 cases and then it brought 100% change in 1 case and 66.67% in another cases. On the other hand, when the combination of schedule awakening, cleanliness training and retention control training were used on 1 case, then it brought 66.67% changed. Dry bed training along brought 66.67% change in 1 case and while it combined with psychoeducation and reward system on 2 cases then it brought 83.33% changed in 1 case and 50% changed in another case. Besides these, when over learning training and reward system were used in 6 cases for relapse prevention purpose then it brought change in 1 cases 0%, in another cases -66.67%, -33% and -12.15%, -9%. In another 1 case 89% changed.

Table-3.32: Frequency of bedwetting and its changes after Psychological management.

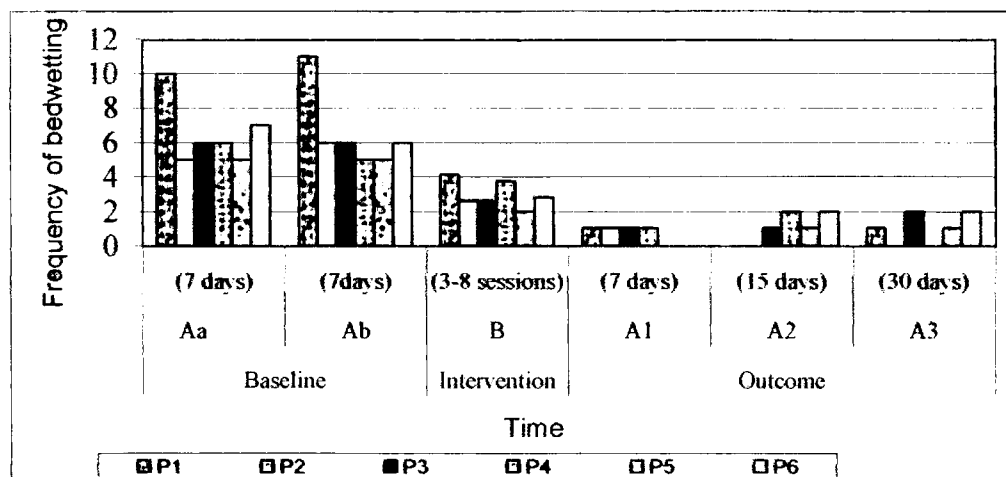
Types of Sessions	Number of sessions	Participants					
		P1	P2	P3	P4	P5	P6
Baseline	Aa (7days)	10	5	6	6	5	7
	Ab (7days)	11	6	6	5	5	6
	Ac(7days)	-	-	-	-	-	7
Intervention	B1 (7days)	9	4	4	7	4	6
	B2 (7days)	4	3	3	4	2	3
	B3 (7days)	5	3	1	3	0	3
	B4 (7days)	3	0	-	1	2	1
	B5 (7days)	2	3	-	-	-	2
	B6 (7days)	4	-	-	-	-	2
	B7 (7days)	5	-	-	-	-	-
	B8 (7days)	1	-	-	-	-	-
Outcome	A1(7days)	1	1	1	1	0	0
	A2(15days)	0	0	1(.47)*	2 (.70) *	1 (.47) *	2 (.73) *
	A3(30days)	1(.23) *	0	2 (.47)*	-	1(.23) *	2 (.40) *

* The fraction of frequency within 7 days.

The table-3.32 described the frequencies of bedwetting among 6 participants through out baseline, intervention and outcome measure sessions. The table disclosed that within 7 days first baseline session Aa, the number of bedwetting frequency were found 10 in 1 case; 7 in 1 case; 6 in 2 cases as well as 5 in 2 cases. During the second

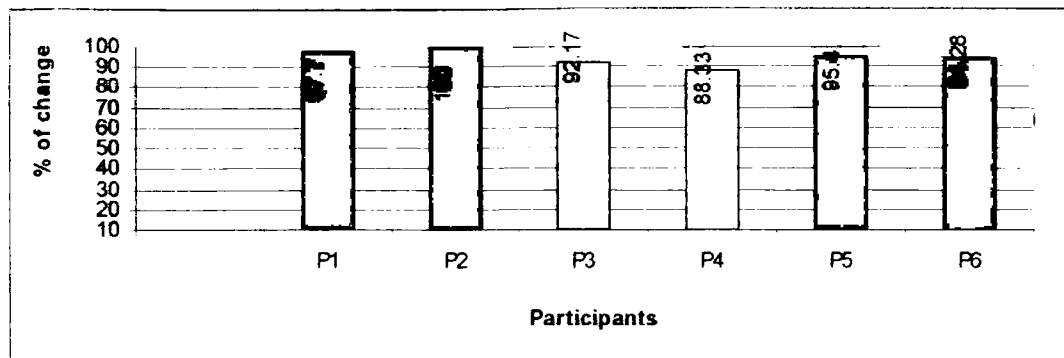
baseline session Ab, the number of bedwetting was 11 in 1 case, 6 in 3 cases and 5 in 2 cases. 7-time bedwetting was found in 1 case within 7 days the third baseline session Ac. Within 3 to 8 intervention sessions B, the range of bedwetting frequencies were found from 9 to 0 in 6 cases. The table also revealed that during the first outcome session A1, the number of bedwetting frequency were noticed 1 in 4 cases, 0 in 2 cases. During the 15 days interval the second outcome session A2, in 2 cases the frequency of bedwetting were 0, in 2 cases were 1 and in 2 cases were 2. Among the 6 cases 5 could be able to attend the last outcome session A3. So, among the 5 cases, 1 of the case's bedwetting frequency was 0, in 2 cases was 1 and in 2 cases' frequency was 2 within 30 days.

Figure-3.42: Outcome Findings of the Psychological Management: Frequency of Bedwetting in Different Phases.



The figure- 3.42 displayed that in baseline sessions most of the cases' bedwetting frequency were 5 and above within 7 days interval. In most of the cases 5 sessions were required in an average as the intervention sessions B, where average bedwetting in 1 case was 4.12, in another 1 case was 3.75. In most of the cases 5 sessions were required in an average as the intervention sessions B, where average bedwetting in 1 case was 4.12, in another 1 case was 3.75, in other 1 case was 2.8, another 1 case was 2 and the last 2 were 2.6. It would be noticed that gradually they were reduced through intervention. In outcome sessions most of the cases were able to reduce bedwetting frequency and in that time the highest frequency was 2 within 30 days interval.

Figure-3.43: Outcome Findings of the Psychological Management: Percentage of change through the Frequency of Bedwetting.



The figure-3.43 showed that among the 6 cases, 1 of the case's bedwetting frequency was changed 100%; in another 3 cases it were 97.70%, 95.40% and 94.28% changed was found. Furthermore, 92.17% and 88.33% changed were found in another 2 cases.

CHAPTER FOUR

Discussion

This discussion will have three sections. In the first section, the findings of the research according to the research objectives, in the second section, implication of the research and in the last section the limitation as well as further recommendation will be discussed.

Discussion the findings of the research:

The aim of the present research was to find out the ways to reduce the problem of enuresis by applying psychological management principles. To fulfil this aim, at first session structure and treatment guideline were established through groundwork and this was applied on the 6 participants. By using frequency chart and in-depth interviews the researcher identified natures and severity of the problem as well as contributing factors that were related to enuresis. After that the researcher work on those contributing factors by applying psychological principles based management such as schedule awakening, cleanliness training, reward system, retention control training, fluid restriction, dry bed training and over learning training in order to reduce the frequency of enuresis. In general, 9 to 14 sessions were required for reducing this problem in a manageable condition. In this study, it was found that psychological principles based managements were able to reduce enuresis problem. This finding was relevant to other research findings. The study shown that, children who wet their bed once per night, then usual treatment spans were 12 weeks and who wet bed more than once, and then their usual treatment spans were 16 weeks (Houts and Mellon, 1989).

The researcher discussed the overall research findings of the main objective throughout the following two specific objectives. On behalf of the first specific objective, to identify those factors that contributes to enuresis, the researcher focusing on individual, interpersonal and contextual factors. The researcher also addressed impact of enuresis.

In individual factors (see the table-3.12), deep sleep was found within 66.67% cases.

Because of deep sleep, they were unable to notice the sensation of a full bladder during sleep since in that time their pelvic floor were more or less electrically silent. That's why could not able to awaken from sleep by hearing alarm clock or parental instruction during sleep. This finding was similar with other research findings (Wille, 1994; Butler, 2001 and Norgaard et al. 1989b).

Positive family history of enuresis was also found within 66.67% cases, among them in 50%cases parent had positive history, in 25% cases sibling had history and in 25% cases first-degree relatives had a history of enuresis. In literature it has strong evidence for enuresis and this finding was relevant to other studies, where the studies found that if one parent had enuresis, the possibility of a child having enuresis is approximately 40% to 45% and if any first-degree relative had a history of enuresis, then it indicated poor prognosis (Bakwin, 1993; Houts, 1995 and Michael & Darby, 2001).

It was also observed that most of the cases (66.67%) had low self-esteem since their enuresis problem. It was found that most of the cases had the experience of being criticized by family members and some of the cases; they were compared with their siblings or other relatives. However parental rejection and parental conflict also played an important role in their self-esteem. So that most of them had develop negative self image just like 'I am not capable as others' or 'I am a foolish child'. These factors also function in two ways, firstly it acted as maintaining factor that helped to maintain enuresis problem and secondly, this problem also enhanced low self- esteem. This finding was related with the findings of other studies (Berry, 2008; Joinson, Heron, Emond & Butter, 2007 and Häggblöf et. al., 1998), where they found most of the enuretic children had low self-esteem and their self-esteem may be normalized with proper treatment of enuresis.

Urinary track infection were noticed in 50% cases, it might be caused and as well maintained enuresis through out increasing the urgency, frequency, burning pain on urination. This finding was related to other research finding (Kaplan et al. 1993). In this research it was also found that among the 50%, 66.67% were male child and in 33.33% had a habit of taking insufficient water to drink, therefore it caused urinary

track infection, as well as enuresis. The others research finding was not supported to the present study finding (Kaplan et al. 1993), since their study finding shown that urinary track infection was more common among female than male child.

In this research, suppressed aggression also helped to maintained enuresis in 50% cases. It was observed that parental and familial negligence and conflicts were present within these cases and it might be lead to suppressed aggression by expression in enuresis. This finding was strongly supported by psychodynamic theories (Anthony, 1957).

It was also observed that toilet related stubborn behavior helped to maintain enuresis in 50% cases, as well as, all of them were only female child in their family. So, the parents showed too much affection to them and also reinforced those types of behavior and activity. For this reason, this type of behavior was acted as individual maintaining factors as well as it was a consequence of enuresis.

In this research, it was discovered that irresponsible behaviour, lack of interest for going to toilet, fear of toilet and anxiety was the maintaining factors and premature birth including low birth weight was acting as predisposing factor. But for 33.33% cases, low bladder functioning was working as both maintaining and predisposing factor. Irresponsible behaviour, lack of interest for going to toilet and fear of toilet, were influencing on children to avoid toileting at appropriate time and place. Therefore, most of them did not develop practice of visiting toilet before bedtime. For anxiety, the children had felt pressure in bladder as result of anxiety reaction and it was relevant to other study finding (Fergusson & Horwood, 1994 and Moilanen, Järvelin, Vikeväinen-Tervonen, & Huttunen, 1987). Since premature birth or low birth weight would make a chance of delayed development or maturation. This finding was relevant with Moilanen's study finding, where they showed that premature birth including low birth-weight children was enuretic more often than children of normal birth-weight (Moilanen et al. 1987). Another study shown that, premature girls have more probabilities to bed -wet for a longer period (Touchette, Petit, Paquet, Tremblay, Boivin & Motplaisir, 2005). Besides this, some of the children could held less amount in their bladders before felt the urgency of need to

urinate and their bladder was too small, so they were unable to hold all the urine produced during the night. Moreover, some of them also had lack of interest for go to toilet and irresponsibility made a practice of didn't visit toilet before sleep as well as they had wetted their bed during sleep. All of these findings had not matched with other research, but low bladder capacity was supported by other research findings (Pennesi et al. 2005; Persson-Junemann et al. 1993 and Maizels et al. 1993). Maizels et al. (1993) found that 85% of children who experienced enuresis had a low functional bladder capacity.

In individual factors, low mood, restlessness and attention seeking behaviour, obesity was found in 16.67% cases. From the present research findings, Low mood, restlessness and attention seeking behaviour was acted as maintaining factors as well as it was a consequence of enuresis. So, these factors helped the children to maintain their bed wetting behaviour. For low mood, the child had not taken any initiative to recover from this problem and had not any hope for recovery. Several studies had been common in reporting that enuresis generates substantial feelings of shame and inferiority in the enuretic child, in particular evident as child's depression, low self-esteem and self-image (Järvelin et al. 1988; Schulpen, 1997 and Hägglöf et al. 1998). Since restlessness, the child did not avoid or eliminated urine properly, so that during sleep bedwetting happened. While children were not visiting to toilet when felt urgency to urinate, then the child got attention of their parents or any care givers, it would be reinforced the child to continue this type of behavior. For obesity, the child intake too much food and water, so, it made pressure on bladder.

In 16.67% cases, it was observed that developmental delay and constipation was acting as predisposing factor; while the constipation was also acting as maintaining factor, but the sexual abuse was acting as precipitating factor. For developmental delay, the child had history of language and motor delay and it could build a better chance to develop enuresis. It was assumed that the child's response to the sensation of a full bladder was also delayed. Other research findings also confirmed this finding (Shaffer, 1994; and Buchanan, 1992). In another research it was found that developmental immaturity, including motor and language milestones, was relevant in the etiology of enuresis for some children, although the mechanism was unknown

(Fritz & Rockney, 2004). For constipation, it helped to carry on enuresis, because in constipation, colon and rectum created pressure on the bladder, so the storage capacity was reduced. This finding is also consistent to others study findings (Inan, Tokuchb, Aydiner, Aksu, Oner, & Basaran, 2008; Pennesi et al. 2005; Eller et al. 1997; and Loening-Baucke, 1997). For sexual abuse, it triggered enuresis, because the child had practice to use toilet regularly by proper toilet training, but after the abuse incidence, it created a habit of toilet avoidance behaviour. This result was relevant to other research findings (Friman et al. 1998; Shaffer, 1994; and Buchanan, 1992).

In this research the findings of interpersonal factors (see the table-3.13), in parenting, inconsistent and overlapping approach was found in 89.33% cases. It was functioning as maintaining factor for enuresis. Through these inconsistency approaches, enuresis became more complicated as well as it also affected in child's emotions and behaviours, so they were confused about themselves. It was also found that 66.67% cases; there were poor toilet training, which acted as predisposing as well as maintaining factor. For poor toilet training, most of the cases did not get any proper guideline for building their appropriate toileting habit up to their current age. If the toilet training is not started within 18 months, it would increase the chances of developing enuresis. Other research indicated similar findings that at age 15–18 months the child is particularly receptive to toilet training Gesell (1949); this corresponds with the 15–24 month period during which Schmitt (1997) also reported that a progressive increase of the intervals between intakes and voids. On the other hand, harsh toilet training also increases the chance of developing fear of toilet as well as enuresis. This finding was strongly relevant with Anthony (1957). It was suggested that the parents might be overly careless and negligent or overly coercive and controlling, during the stage of toilet training then it would develop enuresis, as an expression of that training.

It was found that negative parental attitudes towards enuresis also contributed as maintaining factors in 33.33% cases. It was helped to low down self-esteem of a child after that maintained enuresis. Because of parental negative thoughts and viewpoints about enuresis could be influenced on child's behaviour or emotions. This finding was relevant with other research, where they found strong association between

was relevant with other research, where they found strong association between enuresis and faulty parental attitudes (Cher, Lin, & Hsu, 2002; Oge, Kocak & Gemalmaz, 2001; and Saji, 1991). Saji (1991) in her comparative study of enuretic and non-enuretic children in Kerala found that enuresis was significantly associated with negative maternal attitudes. Hackett et al. (2001) also found strong evidence between enuresis and lax parental attitudes to toilet training.

Parenting style also play significant role in influencing child's behaviours and emotions. While parenting style was inconsistent, then confusion developed among the children about right or wrong and low down their self-esteem. Over indulgent parenting made the more demanding, stubbornness and dam care, irresponsible attitudes. While parenting style was overprotective, then its developed low self-esteem, dependent and indecisiveness. In this research, all of those were also influenced on the most of the cases to maintain and persistent enuresis problem in 33.33% and 16.67%. These findings were significant with other researches where overprotection and hostility had significant association with nocturnal enuresis (Cher et al., 2002; Rao, 1976). The overview of the literature in the field indicates that parental poor involvement; over indulgence, excessive permissiveness, and restrictiveness are often found associated with problems in the attainment of sphincter control (Varga, 1985). In an Indian study, it was found that pathological child-rearing practices, characterised by over protectiveness and dominance, were significantly high in the family of enuretic children (Kishore, 1988).

In 33.33% cases, poor parental adjustment contributed as maintaining factors. Poor parental adjustment played significant role on family environment as well as children's emotion and behaviours. It helped to develop low self- esteem, inferiority complex and insecurity among the children. All of these influenced the development of these children and delayed bladder functioning, so, enuresis was persisting for long-time. Marital conflicts among parents often found significant relationship with enuresis (Schaumburg, Rittig, Djurhuus, 2001).

It was also observed in 16.67% cases that enuresis was associated with poor parental attachment. It was acted as predisposing factor as well as maintaining factor. Some of

the study supported the present finding. During early childhood, while mother child bonding was disrupted by any circumstances, then it helped to develop enuresis and interpersonal conflict (Stein, 2006) Kaffman and Elizur (1977) found a relationship between enuresis in children and parental disinterest, emotional coldness, and temporary separation. Battista, Mariotti, and Rufo (1997) suggested that diurnal enuresis might be related to problems in early parent child relationships. Bhatia, Dhar, Rai and Malik (1990) found that various stress factors such as negligence, overprotection, and strictness of parents were significantly higher among enuretics.

In contextual factors (see the table-3.14), inconsistent reinforcement was acted as maintaining factors within 100% cases. Reinforcement had played a significant role for increasing the specific behaviors. Parental attention following wetting may inadvertently reinforce such problems. In this research, all of the cases had achieved secondary gain through getting parental attention as well as increased maladaptive coping strategies. Moreover, it also had developed confusion among their enuretic behaviors. For these reasons, enuresis was associated with inconsistent reinforcement.

This finding was strongly supported by behavioral theories (Carr, 1999; Fielding & Doleys, 1988), where it is established that poor positive reinforcement for appropriate toileting and the association of toileting with pain or other hostile experiences, might lead to develop or maintenance of enuresis.

It was found that low parental confidence also helped to maintain the problem in 83.33% cases. Parental low confidence made a child to learn helplessness and it also lower children' self- esteem. Other research also confirmed the present findings, where it was found that when bedwetting persisted for long time, then it might lead the parents to develop anxiety, guilt feelings and eventually loss of confidence in their parenting style (Blackwell, 1989).

The present result had pointed out that unreal expectation about bladder control was noticed in 83.33% cases as maintaining factors. While parents were unaware of enuresis, then they wanted to manage the problem by applying common sense and expected that it should solve their child's problem without any cost. However, most

unreal expectation about bladder control.

In 83.33% of cases, the mothers had poor educational background and then it's influence on their child rearing practices. This finding was relevant with other research findings, where it was found that enuresis was associated with parents' education, poor academic achievement (Hackett et al. 2001; Miller, 1993).

The present research also found uncommon issue in family in 33.33% cases that was acted as maintaining factors. Since enuresis was an uncommon problem in their family, therefore, the family members had not any proper knowledge and experience to handle the problem, that's why they took different types of irrelevant action for managing enuresis.

High family stress helped to maintain enuresis that was found in 33.33% cases. In high family stress impacted on children's developmental milestones and it helped to develop insecurity, helplessness and inferiority complex in children. Besides this, parents could not pay proper attention and care during stress. Due to all these reasons, children might suffer from enuresis with other complexity. Environmental stressors, some of which are out of a person's control, can also be anxiety producing. Major lifestyle disruptions viewed as stress can trigger an enuretic episode (Sanborn, 2002). This finding was supported by several research findings (Kelly, 1996; Cher et al., 2002; and Oge et al. 2001).

Low parental self-efficacy helped to maintain enuresis in 16.67% cases. Generally when enuresis was persistent long time then it also created impact on parents' self-efficacy, which also influence on children's emotions. This finding is also relevant with other research (Blackwell, 1989).

Hence, it could be assumed from the findings of this research objective, that individual, interpersonal and contextual factors had been played significant roles on enuresis. Positive family history, deep sleep, urinary track training, faulty parenting, parental conflicts, inconsistent reinforcements, infections and low bladder functioning, low self-esteem, anxiety as well as poor toilet training and criticism in

family environment, poor maternal educational background, together or independently were found to be the cause of enuresis. According to psychopathological hypothesis, any underlying psychopathology may lead to the development enuresis (Shaffer, 1994). So, this research finding suggests that if any of the factors were present in the child, then he or she would be vulnerable to enuresis. In such case, the parents of those children should take precautionary measures for preventing enuresis.

Besides all of these factors, enuresis impacted on children's emotional, behavioral and social areas, which were related to persisting enuresis. Enuresis and the response of others to this problem may produce stress on the child and this might lead to the development of psychological problems. It is also found that clinically significant psychological problems were approximately four times more among the enuretic children than non-enuretic children (Shaffer, 1994). In emotion (see the table-3.15), low self-esteem, inferiority complex and low mood, anxiety, fear of toilet as well as fear of loneliness was observed in 6 cases. Some of these findings are related to other research findings (Berry, 2008; Joinson et.al. 2007; Collier et al. 2002; Liu et al. 2000). In terms of behaviour (see the table- 3.16), stubbornness, avoidance, nagging and restlessness, demanding, nails biting habits, poor academic performance and maladaptive coping strategies, moreover attention seeking behaviour were present among the cases in this research. Other researchers (Blackwell, 1989; Liu et al. 2000 and Hackett et al. 2001) confirmed that nail biting, stubbornness, poor academic performances and attention seeking and avoidance behaviours are common among enuretic children. Bhatia et al. (1990) found that some associated habit disorders such as fear reactions; nail biting; temper-tantrums etc. were significantly higher in enuretics as compared to nonenuretic children. In social areas (see the Table-3.17), criticized by family members or relatives, quarrel with siblings and avoid staying outside home, uninterested to shared bed with relatives, neglected by family members and teased by classmates were found among the cases in this research. All of these difficulties in social areas made the condition most horrible for a child with enuresis. These results were related with other research findings (Blackwell, 1989; Miller et al. 1960). Enuretic children were widely reported to be reluctant to stay overnight with friends and young people reportedly reluctant to take part in school trips that involve

friends and young people reportedly reluctant to take part in school trips that involve staying away from home (Butler, 1994). Furthermore, enuresis or persistent bedwetting in the child may lead to get negative feedback and conflict with the parents, which ultimately wrap the way for maladjustment and behavior problems in the child (Radhika & Thomus, 2005) and successful treatment of enuresis may also leads to the improvement in other behavioural and psychological problems (Shaffer, 1994).

In favour of the second specific objective, to solve the problem of enuresis through psychological management, the researcher took baseline information and applied psychological principle based management, according to severity of the problem and the resources available in the family. The researcher also addressed enuresis as well as the impact of it on child through psychological management for better outcome.

In the present research, different types of psychological management were used for managing the contributing factors and enuresis related other problems. The findings of this research indicated that in the most of the cases, contributing individual factors including negative cognitions, interpersonal factors including negative parental attitudes and contextual factors were more or less changed by applying behavior therapy, cognitive therapy and creative therapy. Such as, when fear of toilet and anxiety had been addressed and treated by systematic desensitisation and relaxation, then it was encouraged the cases for visiting toilet. So, it is concluded that, by applying psychological interventions, problematic factors could be turned into manageable condition and the change of these factors had been played an important role to overcome enuresis as well as increased involvement of the cases and their parents in this research processes. These findings were related to other research findings (e.g., Shaffer, 1994). He also found that successful symptomatic treatment of underlying problems may lead to the improvement in enuresis.

In this research, the outcomes of psychological management were measured through subjective rating of cases and their parents to the problem of enuresis in baseline condition and outcome condition (see Figure-3.40). The result shown that in baseline condition, most of the cases and their parents rated or perceived their enuresis as highly problematic and gradually the rating of the problem fall down in all the cases

and their parents. This happened due to perceiving the improvements through psychological management. When this result was presented by percentage of changes (see Figure-3.41) the participants' scores of 100 point rating scale on baseline (Aa) and final follow-up (A3), then it indicated that the perception of the problem had been changed through the observing the improvement of the condition. The overall improvements were observed 77.77% to 100% in all of the 6 cases. In 2 cases 100% of improvements were found as well as in 3 cases, the improvements were above 85% and in 1 case, 77.77% change was observed. So, it seems that patient's perception of the problem situation changed due to successful application of psychological management resulting in progress of the enuresis condition. When patients' own resources were at a low level, then the outside help needed to be activated to counterbalance for their helplessness. In that way the patients might be able to find out their personal worth and increased self-esteem. Thus psychological intervention played a vital role in growing the positive attitude to the existent resources.

In this research different types of psychological, especially behavioural management, were used and their outcomes were mainly measured through the frequency of bed-wetting (see the table-3.25). When only psychoeducation was used, then the percentage of improvement was found only 20% by frequency count, while, the combination of psychoeducation, schedule awakening, cleanliness training and reward system were used, then the percentage of improvement was found 60% through bedwetting frequency, when role play was included in that combination, then the percentage of improvement was found in diurnal enuresis 66.67%, in nocturnal enuresis 57.14% to 60%. Besides this combination, when dry bed training without urine alarm was used as its alternative, then it brought 66.67% change in the same case. Furthermore, when psychoeducation and reward system were included in dry bed training, then the percentage of change was found 50% and 83.33%. All of these combinations were applied for reducing bedwetting through motivation and develop habit to visit toilet after certain period of times. According to these findings, it can be concluded that all these combinations would be able to brought at least 50% improvement from previous baseline scores. In this research, schedule awaking and dry bed without urine alarm was used to help the children to shape their wakefulness, cleanliness training to punish the bed-wetting. But this finding was not supported by

the urine alarm reduces its effectiveness (Bollard & Nettlebeck, 1981; Keating, Butz, Burke, & Heimberg, 1983), but it had brought overall 78% initial success, 33% relapse rate and long-term success rate of 57% (HiraSing et al. 2002; Evans, 2001 and Keating, et al. 1983; Doleys, Ciminero, Tollison, Williams & Wells, 1977). However, another study showed that there are great usefulness of the waking schedule and positive practice or reward system with dry bed training, upon the child and family (Mellon & Houts, 1998).

The present research findings also indicated that while only retention control training was used, then the percentage of improvement was found 100% throughout immediate previous bed wetting frequency in diurnal enuresis and in nocturnal enuresis only 25%. This finding is quite similar with other research findings. The cure rate for bladder retention training was only 35% (Starfield & Mellitis, 1968). When, it was combined with fluid restriction, then the percentage of improvement was found throughout immediate previous bed wetting frequency in nocturnal enuresis was 66.67% to 100%, moreover 66.67% improvement was also found in similar ways when it was combined with scheduled awakening and cleanliness training. By applying retention control training, children were able to hold their urine for more time than earlier and they were also able to increase their self-confidence than before. This finding was related to other researches (Hamano et al. 2000; Harris, 1977; and Fielding, 1980).

For preventing relapse at night, over learning training with reward system was provided on all of the cases. The percentage of the improvement 0%, 66.67% and 100% change was observed through comparing the immediate previous bedwetting frequencies. From these findings, it can be told that although 0% percentage of improvement was found because of all the cases already reached their success, so it could help them to prevent relapse of nocturnal enuresis. This finding was quite parallel with Young and Morgan's study (1972), which reported that over learning training, was able to interrupt the chances of relapse, when conditioning techniques had already treated the frequencies of enuresis (Butler, 2001; Morgan, 1978; Whelan & Houts, 1990). Another research also indicated that over-learning had been found to reduce relapse by $10 \pm 12\%$ (Houts, 1995; and Morgan, 1978).

In this research, when the findings of bedwetting frequencies in different phases were presented (see Table-3.26, and the Figure-3.42), it was shown that during baseline stages the frequencies were high and gradually the frequencies were decreased in all of the cases through psychological management, even in 1 case it was possible to alleviate completely and on the other hand, none of the cases did not relapse. When this result was explained by percentage of changes (see Figure-3.43) throughout the bedwetting frequencies of baseline (Aa) and final follow-up (A3), then it indicated that psychological management or intervention, which consist of creative therapy; psychoeducation; simple and other behavior therapy, such as schedule awakening, cleanliness training and reward system, dry bed training, fluid restriction, moreover retention control training and over learning was able to brought satisfactory changes in all of the 6 cases. The overall improvements were observed among 88.33% to 100% in all of the 6 cases. In 1 case, 100% of improvement was found as well as in 4 cases, the improvements were above 90% and another in 1 case, the percentage of improvement was more than 85% to 88.33%. So, from this finding, it would be assumed that through psychological management without urine alarm, the problem of enuresis could be reduced as well as solved. In this research, instead of urine alarm, alarm clock had been used and all of the management's techniques had been presented by using simple and understandable language or analogies. Moreover, self-monitoring or frequency charts were used in all of the cases, therefore, satisfactory outcome had been found. These findings were quite related to other research findings (Houts, Berman, & Abramson, 1994; Friman & Jones, 2005). The manner in which conditioning treatment is presented and monitored affects the success rate (Moffatt, 1997). Conditioning of night awakening to the sensation of a full bladder is the most successful of the generic treatments of enuresis (Fritz et al. 2004). A meta-analysis of decades of conditioning studies has shown an initial success rate (defined as a reduction to less than one wet night per month) of approximately 66%, with more than half the subjects experiencing long-term success (Jensen and Krisensen, 1999; Houts et al. 1994). In contrast, several comparative studies showed that the alarm-based treatment is superior to drug treatment and other non-drug methods such as retention control training (Friman et al. 2005). They also found that combining the alarm with various adjunctive treatment components could enhance its effectiveness

alarm with various adjunctive treatment components could enhance its effectiveness and they also recommended written contract, thorough instructions, and frequent (at least every 3 weeks) monitoring appointments for successful outcomes (Houts, 1995). One essential reason for satisfactory outcome of psychological management was that personal qualities of the patients and their parents had an important role for achieving the outcome. Most of the cases and their parents were co-operative and majority of the cases were easy going and motivated themselves to attend the therapy. Besides this; family support, study setting support had also play significant role for this outcome. For this reason, the satisfactory outcome of psychological management on enuresis was found in this research. So, the overall findings of the current research point out that when the principles of psychological management was applied on the basis of patient's own resources and contributing individual, interpersonal and contextual factors of enuresis, then psychological management principles could reduce enuresis problem.

Implication of the present findings:

The overall findings of this research revealed that in all of the cases, psychological, especially behavioral principles based management, were capable to overcome enuresis. The researcher addressed contributing factor to enuresis-individual, interpersonal and contextual factors, of the case, and the impact of enuresis on their emotional, behavioural and social life. Then the researcher developed the treatment plan based on problem severity, contributing maintaining factors and availability of the resources of the individual cases .After that the researcher measured the outcome of psychological management through bedwetting frequency, subjective ratings of the problem, situation of contributing factors and parental attitudes towards their child's enuresis problem. The researcher found that significant positive changes occurred through psychological management within 9 to 14 sessions and it was possible to prevent relapse. So it indicated that psychological principles based management could reduce enuresis and it also prevented adverse consequences or damage in emotional, behavioural and social aspect of the child as well as maintained the progress. This findings give a guideline for how to managing enuresis problem through psychological principle.

Enuresis is a silent feature of other psychological disorder. In this research, it was found that most of the people in Bangladesh are not aware about the problem of enuresis, its impact as well as toilet training; therefore they did not seek help for this problem, rather than most of the people handle this problem and enuretic child through punishment, criticism and other religious approaches. As a result the enuretic children and their family members and parents experienced lots of suffering.

On the other hand, paediatricians, nephrologists and doctors are not aware about the psychological management as well as its effectiveness. For this reason, they easily prescribed the medication for reducing symptom and suggested enuresis alarm as psychological component. Although, the enuresis alarm was widely used in western countries but it was not so available in this country. Therefore, medication could not maintain progress and enuresis alarm was not available in Bangladesh. So, all these approach could not bring potential positive change, moreover which also affect on children mental health negatively as well as relapse would be occurred.

For better management of the enuresis, it was found that there was need to integrate psychological management with different management program. Because of the enuretic children is not dependent on only matter and every children as well as human being is a bio-psycho-social product, so every each part of these factors influences one another. So, integrated management can brings a positive result on enuresis problem, where psychological management, medication and other management work together. So, it can be possible by taking steps for community awareness program about enuresis and its management through electronic media and multi-media campaigns. Besides this, another steps would be taken for Doctors, psychiatrist through seminars, journal publication and symposiums that psychological principles based management would be reducing the frequency of enuresis and preventing relapse as well as managing negative consequence of its.

Recommendations for further research:

The present research had some limitations. That's why this research was to be replicated the following recommendations would be made:

1. In this research, the numbers of participants were very small, so the findings

of this research could not be generalised. This finding only provided some ideas of enuretic children, which was not representative for large population. Besides the researcher used single case design for these cases, so it was not possible to draw any inference using statistical analysis. For getting representative results further research can be conducted by taking large number of sample and advanced research design.

2. The second limitation was that the researcher took only Dhaka based samples to managed enuresis through psychological principles. But enuresis was not Dhaka based child's problem. So, the outcome of psychological management in other areas in Bangladesh could not found. For this reason, another research will be done for draw a generalised picture of Bangladesh.

3. In the present research, the researcher took only those enuretic cases that live with their parents. The researcher was not taken any institution based enuretic children and children with single parents. Through these findings, it cannot assume whole picture, so further research can be initiated.

4. The researcher had not used control group in this research, so the outcome of psychological management cannot specify. That's why further research further research will be done for specify the outcome.

5. In some of cases, the researcher could not conduct the session in a private and quite room, as there was no extra room in one study settings and in some cases the session could not done in a same room. Moreover, some of the time the session was interrupted by other patients or staffs of those study settings.

6. In some cases, though the participants had strong need for more session, but the researcher had to terminate the session due to their parent's demand and could not involve both parents in this research. If both parents were involved, then outcome would be changed.

7. The last limitation of this research was that the researcher could not use this alarm as a psychological management tools. Enuresis alarm was not available in Bangladesh.

Besides these it is a pioneer research about the management of child problem. So, it gives some indication about the enuretic child mental health condition. It also indicated about how quality of psychological management can be provided. But to generalised and gain in-depth knowledge in this area, further research need to be done

including larger population with different age group, control group and represented samples in all over Bangladesh.

Despite of these limitations, it is whispered that the findings of the research can be contributed to understand the condition of enuretic children and their family in Bangladesh and can help to providing quality of management to them. In this research, it was found that several factors could be contributed in enuresis problem that could also hamper in other areas of children. The current research also observed that the outcome of psychological management was satisfactory for most of the cases. These findings suggest that the children with enuresis needed psychological principles based management for overcoming the problem and reducing the chances of relapse as well as re-establish their self -esteem. Finally these findings indicated that if psychological management will integrate with other existing management support, then it brings a positive and potential outcome in enuresis.

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Appendix-1

পরীক্ষের প্রয়োজনীয় তথ্যাবলী

■ পরিচিতি:

১. নাম: ২. বয়স: ৩. জন্ম তারিখ:
৪. লিঙ্গ:
৫. বাসার ঠিকানা ও ফোন নম্বর:
৬. (ক) বাবার নাম: (খ) বয়স: (গ) পেশা:
- (ঘ) শিক্ষাগত যোগ্যতা: (ঙ) বাবার স্বভাব:
- (চ) ছোট বেলায় বিছানায় প্রস্রাব করতো কিনা?
৭. (ক) মায়ের নাম: (খ) বয়স: (গ) পেশা:
- (ঘ) শিক্ষাগত যোগ্যতা: (ঙ) মা স্বভাব:
- (চ) ছোট বেলায় বিছানায় প্রস্রাব করতো কিনা?
৮. ভাই বোন: (ক) ভাই বোনের সংখ্যা: ভাই বোন
- (খ) জন্ম ক্রম:
- (গ) ভাই বোনদের মাঝে কারও বিছানায় প্রস্রাব করার সমস্যা আছে কিনা/ ছিল কিনা?

■ বিদ্যালয় সংক্রান্ত তথ্যাবলী:

১. স্কুল টিচারের কথা শুনে কিনা?
২. পড়ালেখাতে মনোযোগী কিনা?
৩. অন্যান্য ছাত্রছাত্রীদের সাথে মেলা-মেশা করে কিনা?
৪. সাধারণত কোন বিষয়টিতে ভাল এবং কোনটিতে দুর্বল?
৫. স্কুলে কেমন দক্ষতা দেখাতে পারে?
৬. পড়াশুনা ছাড়া অন্যকোন বিষয়ে কি রকম দক্ষতা আছে?
৭. কোন স্কুল পরিবর্তন করা হয়েছে কিনা, হল কেন?
৮. স্কুলে বন্ধু আছে কিনা, তাদের সাথে ঝগড়া/মারামারি করে কিনা?

৯. প্রথম স্কুলে গিয়ে কি করেছে?

▪ বিকাশ সংক্রান্ত তথ্যাবলী:

১. কতমাস বয়সে জন্ম গ্রহন করেছে , আগে বা দেরীতে হয়েছে? জন্মকালীন সময় ওজন কত ছিল?
২. গর্ভকালীন সময়ে মায়ের কোন অসুস্থ্যতা ছিল কিনা?
৩. গর্ভকালীন সময়ে মা মানসিক ভাবে কেমন ছিলেন?
৪. জন্মকালীন সময়ে কোনধরনের জটিলতা দেখা গিয়াছে কিনা?
৫. স্বাভাবিক প্রসব সিজারিয়ান ফোরসেপ
৬. জন্মের সময় শিশু কেঁদেছে কিনা? কোন শ্বাসকষ্ট ছিল কিনা ?
৭. কতদিনে ঘাড় শক্ত হয়েছে ?
৮. কতদিনে উপুর হয়েছে ?
৯. কতদিনে বসতে পেরেছে ?
১০. কতদিনে হাঁটতে শিখেছে ?
১১. কবে/কত বছর বয়সে কথা বলতে পেরেছে ?
১২. ছোট বেলায় সবার কোলে যেত কিনা ? লজ্জা/ভয় পেত কিনা ?
১৩. আপনার কি মনে হয় বয়সের তুলনায় তার বুদ্ধিমত্তা কিছুটা কম ?

▪ স্বাস্থ্য সংক্রান্ত তথ্য :

১. উচ্চতা :
২. ওজন
৩. খাবার আগ্রহ :
৪. প্রায়ই অসুস্থ্য থাকে কিনা এবং থাকলে সাধারণত কি হয় ?
৫. ছোট বেলায় কেন বড় ধরনের অসুখ ছিল কিনা যার জন্য হাসপাতালে যেতে হয়েছে ?
৬. প্রস্রাবে জ্বলাপোড়া হত কিনা ?
৭. কখনও খিচুনি হয় কিনা ?
৮. সময়মত যে ৬টি প্রতিষেধক নিতে হয় তা যথাযত ভাবে নিয়েছে কিনা

৯. কোষ্ঠকাঠিন্য আছে কিনা ?
১০. সব ধরনের খাবার খায় কিনা, নাকি খাবার খেতে চায় না?
১১. শ্বাসকষ্ট আছে কিনা ?
১২. গ্যাসট্রিকের সমস্যা আছে কিনা ?
১৩. স্বাভাবিক তুলনায় হৃদ্রত/ বেশী প্রস্রাব হয় কিনা?
১৪. কোন স্নায়ুগত সমস্যা আছে কিনা ?
১৫. মাথায় কোন আঘাত পেয়েছে কিনা ?

■ আচার আচরনগত তথ্য :

১. ভীতু/লোভী/সাহসী/লাজুক/জেদী/ আক্রমানাত্মক/অস্থির/অলস।
২. ভাইবোনের প্রতি হিংসাত্মক মনোভাব পোষন করে কিনা ?
৩. অকারনে/অপ্লতেই/কান্নাকাটি করে কিনা ?
৪. বাবা মার কথা মান্য করে কিনা ?
৫. অকারনে / কোন বিশেষ কিছুকে ভয় পায় কিনা ?
৬. কোন কাজ দিলে কি উৎসাহের সাথে শেষ করে ?

■ পারিবারিক সম্পর্ক

১. বাবা মার মধ্যে কার প্রতি বেশী অনুরক্ত/ নির্ভরশীল ?
২. ভাই বোনদের মধ্যে কার সাথে সহজে মানিয়ে চলে ?
৩. বাবা মার মধ্যকার সম্পর্ক কেমন ?
৪. বাচ্চা কখনও পরিবারের বাইরে কারও কাছে/হোষ্টেলে থেকেকে কিনা ?
৫. বাবা মার সাথে বাচ্চার সম্পর্কের ধরন কেমন ?
৬. বাবা মার মধ্যকার দ্বন্দ্ব/ ঝগড়া কি বাচ্চাদের সাথে শেয়ার করা হয় ? তা কি প্রভাব ফেলে?
৭. বাবা মা পরস্পরের প্রতি দায়িত্বশীল/সমালোচনামূলক মনোভাব পোষন করে ?
৮. বাবা মা তার সন্তানদের কতটুকু সময় দেয় ?
৯. বাবা মা তাদের ছেলেমেয়েদের চাহিদা পূরন সক্ষম কিনা ?

১০. যে সময়টা বাবা মার সাথে কাটায় তা কিরকম ?

১১. তারা কি বাচ্চাদের সর্বদা অন্য বাচ্চাদের সাথে ভলনা করে ?

১২. বাবা মা কি বাচ্চাদের দোষ ত্রুটি সবার সামনে বলে তাকে লজ্জা দেবার চেষ্টা করে ? না সহানুভূতির

সাথে তা সংশোধন করতে চেষ্টা করে ?

▪ পারিবারিক পরিবেশ :

১. পরিবারের মাসিক আয় ?

২. পরিবারের মোট উপার্জনক্ষম ব্যক্তির সংখ্যা

৩. পরিবারে মোট সদস্য সংখ্যা ?

৪. পরিবারের সদস্যরা একত্রে বসে গল্প/হাসিঠাট্টা/মজাদার কোন কিছু করে কিনা ?

৫. পরিবারের সদস্যরা একজন অন্যজনের প্রতি শ্রদ্ধাশীল কিনা/সমালোচনাপূর্ণ/হিংসাত্মক মনোভাব পোষন করে ?

৬. পরিবারে বাবা মা অন্যান্য সদস্যদের লেখাপড়ার বাইরে অন্যকোন সৃজনশীল কাজের উৎসাহ প্রদান করে কিনা ।

৭. বাড়ীতে যথেষ্ট পরিমাণে খেলার জায়গা আছে কিনা ?

৮. বাড়ীতে পরিবারের সদস্যদের তুলনায় রুম যথেষ্ট কিনা ?

৯. পরিবারে ছেলেমেয়েদের লেখা পড়া এবং অন্যান্য দৈনন্দিন কাজের জন্য কি নিয়মকানুন আছে কিনা?

১০. পরিবারে অন্যান্য সদস্যদের সাথে বাচ্চার সম্পর্ক কেমন ? ছোট হতে কার কাছে বেশী থাকতে স্বাঙ্গন্দ বোধ করে ?

১১. পরিবারের সদস্যরা সবাই একত্রিত হয়ে খেতে বসে কিনা ?

১২. পরিবারের সদস্যরা তাদের মধ্যকার সমস্যা শেয়ার করে কিনা ?

১৩. পরিবারের সদস্যরা একজন অন্যজনের পিছনে লেগে থাকে কিনা ?

১৪. পরিবারের সদস্যরা তাদের যা দায়িত্ব তা যথাযত ভাবে পালন করে কিনা ?

১৫. পরিবারে কোন ধরনের সমস্যা বিরাজ করেছে কিনা ? করলে কি ধরনের ?

১৬. পারিবারিক পরিবেশটা কি ধরনের ?

১৭. পরিবারে কারও মধ্যে কি বিছানায় প্রস্রাব করার অভ্যাস আছে / ছিল ?

১৮. পরিবারে সদস্যদের মধ্যে বাচ্চার মতামতকে প্রধান্য দেয়ার প্রবণতা আছে কিনা ?

▪ সমস্যাকেন্দ্রিক তথ্য :

১. কবে হতে এই সমস্যা দেখা গিয়েছে ?

২. সাধারনত দিনে কতবার/ রাতে কতবার বিছানা/ প্যান্টে প্রস্রাব করে দেয় ?

৩. সপ্তাহে প্রতিদিন বিছানা/প্যান্ট প্রস্রাব করে কি ?

৪. কতমাস ধরে এই সমস্যা দেখা দিচ্ছে ?

৫. এই সমস্যার জন্য বাবা মা কোন চিকিৎসক/অন্য কারও পরামর্শ নিয়েছে কি ?

৬. এই সমস্যার জন্য কি বাচ্চার পড়ালেখা/সামাজিক মেলামেশার ক্ষেত্রে কোন প্রভাব ফেলে কিনা ?

৭. বাথরুমে না যাওয়ার জন্য বাচ্চা জিদ করে কি ?

৮. বিছনাত প্রস্রাব করার পর বাবা মা সাধারনত কি করেন ?

৯. ঘুমানো অবস্থা ছাড়াও কি সে প্যান্টে প্রস্রাব করে দেয় ?

১০. বাবা মা বাথরুমে যেয়ে প্রস্রাব করতে উৎসাহিত করেন কিনা?

১১. বাবা মা বাথরুমে প্রস্রাব করতে ছোট বেলা হতে যথাযথ প্রশিক্ষণ দিয়েছেন কিনা? দিলে তা কি খুব কঠোর ছিল।

১২. বাচ্চার ঘুম কি খুব গভীর?

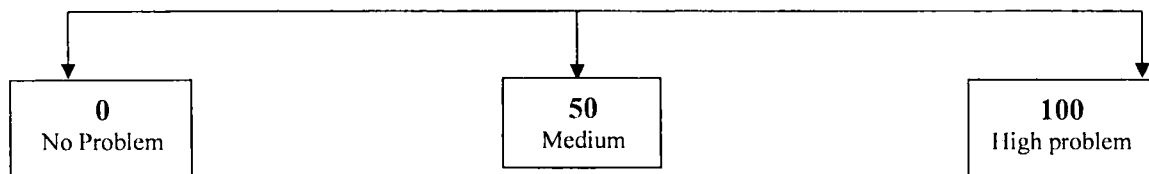
১৩. এই সমস্যার জন্য তার মন কি সবসময় খারাপ থাকে?

১৪. এর জন্য কি তার কারও সাথে মেলামেশা করতে সংকোচ বোধ করে?

১৫. বাবা মা কি মনে করেন চিকিৎসা করলে এটা ভাল হবে?

Appendix 2

100 Point Rating Scale



Appendix 3(a)

ATTITUDE TOWARDS ENURESIS

Radhika.S & Immanuel Thomas, 1999.

সাধারণত একজন বাচ্চা ৫ বছরের মধ্যেই প্রস্রাব নিয়ন্ত্রণ করার দক্ষতা অর্জন করে থাকে। কিন্তু যখন দেখা যায় ৫ বছরের পরও বাচ্চা প্রস্রাব নিয়ন্ত্রণ করার দক্ষতা অর্জন করতে পারছে না বা ব্যর্থ হয় তখন তাকে ইনোরেসিস বা 'প্রস্রাব নিয়ন্ত্রণহীনতার সমস্যা' হিসাবে ধরা হয়। নিম্নে এ সংক্রান্ত কিছু প্রশ্নমালা রয়েছে যেখানে বাচ্চার এ ধরনের সমস্যার প্রতি বাবা - মার মনোভাব কেমন সে সম্পর্কে ধারণা পাওয়া যাবে।

দয়া করে প্রতিটি প্রশ্ন মনোযোগ সহকারে পড়ুন এবং সঠিক তথ্য পদান করুন। প্রতিটি প্রশ্নের জন্য তিনটি করে উত্তর রয়েছে যেমনঃ সম্পূর্ণ একমত, মোটামুটি একমত, সম্পূর্ণ ভিন্নমত। আপনার জন্য যে উত্তরটি প্রযোজ্য শুধু মাত্র সেই উত্তরের ঘরে টিক (✓) চিহ্ন দিন। এ ব্যাপারে সকল প্রকার গোপনীয়তা রক্ষা করা হবে। আপনার সহযোগিতার জন্য ধন্যবাদ।

উত্তরদাতা: বাবা মা

ক্রম	প্রশ্নমালা	সম্পূর্ণ একমত	মোটামুটি একমত	সম্পূর্ণ ভিন্নমত
০১।	বাচ্চাদেরকে যদি কঠোরভাবে প্রশিক্ষণ দেওয়া যায়, তবে প্রস্রাব ও পায়খানা নিয়ন্ত্রণের দক্ষতা অর্জন করা যায়।			
০২।	বাচ্চার বিছানায় প্রস্রাব নিয়ন্ত্রণ করতে না পারার জন্য বাবা-মা দায়ী নয়।			
০৩।	এই সমস্যাটি বাচ্চার প্রধান আচরণগত সমস্যা হিসাবে বিবেচিত হয়।			
০৪।	একটা নির্দিষ্ট বয়সের পরও যখন বাচ্চাটি প্রস্রাব নিয়ন্ত্রণ করতে না পারে, তবে বোঝা যায় সমস্যাটি তার শারীরিক বা স্নায়ুগত।			
০৫।	পরিবারের সদস্যদের ভালবাসা ও সমর্থনের মাধ্যমে বিছানা ভিজানোর সমস্যা নিয়ন্ত্রণ করা সম্ভব।			
০৬।	এই সমস্যাটি স্কুলগামী বাচ্চাদের ক্ষেত্রেই বেশী দেখা যায়।			
০৭।	এই সমস্যাটি নির্দেশ করে যে বাচ্চাটির দায়িত্ববোধ ও পরিপক্বতার ক্ষেত্রে ঘাটতি রয়েছে।			
০৮।	এই সমস্যাটি কেবল মাত্র তখনই দেখা যায় যখন বাবা-মা তাদের বাচ্চাকে যথাযথ ভাবে নিয়ন্ত্রণ করতে না পারে।			
০৯।	বিছানাতে প্রস্রাব নিয়ন্ত্রণে অক্ষম বাচ্চার বাবা-মা চরম বিব্রতকর অবস্থায় থাকে।			
১০।	যদি বাচ্চাটি চায়, তবে সে নিজেই নিজের এই সমস্যা নিয়ন্ত্রণ করতে পারে।			
১১।	ঔষধের মাধ্যমে এই সমস্যা যথাযথ ভাবে দূর করা সম্ভব।			
১২।	বাবা-মা নিজেরা বাচ্চার প্রস্রাব নিয়ন্ত্রণের অভ্যাস তৈরী করার ক্ষেত্রে কিছু করতে পারবে না।			
১৩।	এই সমস্যাটি বাচ্চার পারিবারিক পরিবেশের প্রতি বিরূপ প্রতিক্রিয়া হিসাবে বিবেচিত হয়।			
১৪।	বাবা-মা পক্ষে এই সমস্যাটি প্রতিরোধ করা সম্ভব।			
মোট নম্বর :				

Appendix 3(b)

Toilet Training Practices

Radhika.S & Immanuel Thomas, 1999

সাধারণত একজন বাচ্চা ৫ বছরের মধ্যেই প্রস্রাব নিয়ন্ত্রণ করার দক্ষতা অর্জন করে থাকে। আর এই দক্ষতা অর্জন করার ক্ষেত্রে তাদের বাবা-মার অবদান কতটুকু তা সম্পর্কে নিম্নের প্রশ্নমালার মাধ্যমে ধারণা পাওয়া যায়।

দয়া করে প্রতিটি প্রশ্ন মনোযোগ সহকারে পড়ুন এবং সঠিক তথ্য পদান করুন। প্রতিটি প্রশ্নের জন্য চারটি করে উত্তর রয়েছে। আপনার জন্য যে উত্তরটি প্রযোজ্য শুধু মাত্র সেই উত্তরের ঘরে টিক (✓) চিহ্ন দিন। এ ব্যাপারে সকল প্রকার গোপনীয়তা রক্ষা করা হবে। আপনার সহযোগিতার জন্য ধন্যবাদ।

উত্তরদাতা: বাবা মা

ক্রম	প্রশ্নমালা
০১।	বাচ্চার দেড় বছর হওয়ার আগেই বাথরুম করার প্রশিক্ষণ দেওয়া হয়েছে। ক) সব সময়ই খ) প্রায় সময়ই গ) মাঝে মাঝে ঘ) কখনো না
০২।	বাচ্চা যখন তার প্রস্রাব নিয়ন্ত্রণ করতে পারত না তখন তাকে শাস্তি প্রদান করা হয়েছে। ক) সব সময়ই খ) প্রায় সময়ই গ) মাঝে মাঝে ঘ) কখনো না
০৩।	ঠিকমত বাথরুম করার জন্য তাকে বিশেষ যত্ন নেওয়া হতো। ক) সব সময়ই খ) প্রায় সময়ই গ) মাঝে মাঝে ঘ) কখনো না
০৪।	জন্মের প্রথম দুই বছরের মধ্যেই বাচ্চাকে পরিষ্কার পরিচ্ছন্ন থাকার অভ্যাস করা ক্ষেত্রে বিশেষ যত্ন নেওয়া হয়েছে। ক) সব সময়ই খ) প্রায় সময়ই গ) মাঝে মাঝে ঘ) কখনো না
০৫।	নির্দিষ্ট সময়ের মধ্যেই প্রস্রাব-পায়খানা করতে হবে, এরকম কোন চাপ প্রয়োগ করা হতো না। ক) সম্পূর্ণ ভাবে একমত খ) একমত গ) ভিন্নমত ঘ) সম্পূর্ণ ভিন্ন মত
০৬।	বাচ্চাকে প্রস্রাব-পায়খানা করে নোংরা করার জন্য শারীরিক/মানসিক শাস্তি প্রদান করা হতো। ক) সব সময়ই খ) প্রায় সময়ই গ) মাঝে মাঝে ঘ) কখনো না
০৭।	বয়সের সাথে-সাথে এক্ষেত্রে দক্ষতা অর্জন করতে পারবে, মনে করে কোন রকম প্রশিক্ষণ দেওয়া হতো না। ক) সম্পূর্ণ ভাবে একমত খ) একমত গ) ভিন্নমত ঘ) সম্পূর্ণ ভিন্ন মত
০৮।	বাচ্চাকে বিছানাতে প্রস্রাব না করার জন্য যথাযথ অনুশীলন করানো হয়েছে। ক) সব সময়ই খ) প্রায় সময়ই গ) মাঝে মাঝে ঘ) কখনো না
০৯।	বাচ্চাকে বিছানাতে প্রস্রাব না করার জন্য একটা নির্দিষ্ট সময় পর পর তাকে বাথরুম করানো হতো। ক) সব সময়ই খ) প্রায় সময়ই গ) মাঝে মাঝে ঘ) কখনো না
১০।	বাচ্চা প্রস্রাব পায়খানা করার আগে জানালে তাকে যথাযথ প্রশংসা করা হতো। ক) সব সময়ই খ) প্রায় সময়ই গ) মাঝে মাঝে ঘ) কখনো না
১১।	বাচ্চা বাথরুমে বা বাসার বাইরে প্রস্রাব করছে কিনা সে বিষয় লক্ষ্য রাখা হতো। ক) সব সময়ই খ) প্রায় সময়ই গ) মাঝে মাঝে ঘ) কখনো না
১২।	বাচ্চা বিছানাতে প্রস্রাব করার জন্য তাকে কখনোই শারীরিক/মানসিক শাস্তি প্রদান করতাম না। ক) সম্পূর্ণ ভাবে একমত খ) একমত গ) ভিন্নমত ঘ) সম্পূর্ণ ভিন্ন মত
১৩।	বাচ্চা ঘুমাতে যাওয়ার পূর্বে এবং ঘুমানোর পর তাকে এক-দুইবার বাথরুমে নিয়ে প্রস্রাব করানো হতো। ক) সব সময়ই খ) প্রায় সময়ই গ) মাঝে মাঝে ঘ) কখনো না
১৪।	প্রতিবার বাথরুমে অথবা সুনির্দিষ্ট স্থানে প্রস্রাব বা পায়খানা করলে বাচ্চাকে যথাযথ প্রশংসা করা হতো। ক) সম্পূর্ণ ভাবে একমত খ) একমত গ) ভিন্নমত ঘ) সম্পূর্ণ ভিন্ন মত
মোট নম্বর :	

Appendix-4

Session Structure

Session	Activities
Session 1	Rapport build up and collecting Demographic information.
Session 2(Aa)	Assessment and Baseline data collected.
Session 3(Ab)	Assessment and Baseline data collected
Session 4(B1)	Formulation share, psychoeducation provide and Treatment plan.
Session 5(B2)	Treatment /Intervention
Session 6(B3)	Treatment /Intervention
Session 7(B4)	Treatment /Intervention
Session 8(A1)	Treatment /Intervention
Session 9(A2)	Follow up (15 days)
Session 10(A3)	Follow up and termination (30 Days)

Appendix- 5

Permission letter

Date:

To,

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.....

.....

Subject: Seeking Permission for Providing Clinical Psychological Service To The Patient With Enuresis.

Sir,

With due respect, I like to draw your kind attention to the above-mentioned subject. I am Ismat Jahan, a M.Phil student (Part-II), Department of Clinical Psychology, University of Dhaka. For the fulfilment of my academic requirement conducting a research entitled "Psychological Management of Enuresis" under the supervision of Dr. Mahmudur Rahman, Professor & chairman, Department of Clinical Psychology, University of Dhaka. These patients are available in the Department of Psychiatry and Department of Nephrology. To fulfilment research objectives I need your help and cooperation in the following areas:

- Access to patients for conducting psychological assessment for planning and executing psychological intervention.
- Access to library and journals at your department at least for one year.

My work will not hamper medical treatment of the patients with enuresis. There has been no research in the field of enuresis in Bangladesh. It is hoped that from this research patients with enuresis will overcome their wetting problem, increasing their self-confidence and maintain better quality of life. I also hoped that this work would create opportunity to provide clinical psychological service to the patient with enuresis, in collaboration between Department of Psychiatry/ Department of Nephrology and Clinical Psychology.

I therefore, hope that you would be kind enough to allow me to work with the patient with enuresis.

Yours Sincerely,

Ismat Jahan
Student: M. Phil (Part-II),
Department of Clinical Psychology,
University of Dhaka

Appendix- 6
Advertisement Copy

৬

মঙ্গলবার, ১৬ সেপ্টেম্বর ২০০৮

প্রথম পাতা

বিজ্ঞপ্তি

ঢাকা বিশ্ববিদ্যালয়ে চিকিৎসা
মনোবিজ্ঞান বিভাগের অধ্যাপক ডঃ
মাহমুদুর রহমান-এর তত্ত্বাবধানে একটি
গবেষণার অংশ হিসাবে ৫ হতে ১২ বছর
বয়সী শিশুদের বিছানার প্রস্রাব করার
সমস্যার জন্য বিনামূল্যে ওষুধবিহীন
মনোবৈজ্ঞানিক চিকিৎসা প্রদান করছেন।
আগ্রহী বাবা-মাকে যথাশীঘ্র যোগাযোগ
করতে অনুরোধ করা যাচ্ছে।
যোগাযোগ :- ইসমত জাহান, চিকিৎসা
মনোবিজ্ঞান বিভাগ, ঢাকা বিশ্ববিদ্যালয়।
ফোন : ০১৭২৬৭০৪৫০২ সি-২৩০৬৪

Appendix -7

Inform Consent

অঙ্গিকারনামা

গবেষনার নাম : “Psychological Management of Enuresis”
গবেষক : ইসমত জাহান, এম, ফিল (২য় পর্ব), চিকিৎসা মনোবিজ্ঞান বিভাগ, ঢাকা বিশ্ববিদ্যালয়
তত্ত্বাবধায়ক : অধ্যাপক ডঃ মাহামুদুর রহমান, চিকিৎসা মনোবিজ্ঞান বিভাগ, ঢাকা বিশ্ববিদ্যালয়

গবেষনার উদ্দেশ্য : এই গবেষনার উদ্দেশ্য হলো মনোবৈজ্ঞানিক নিতিমালা ব্যবহারের মাধ্যমে শিশুদের বিছানাতে/প্যান্টে প্রস্রাব নিয়ন্ত্রণ জনিত সমস্যা দূর করা। এই লক্ষ্যে আমি ইসমত জাহান এই গবেষনার অংশ হিসাবে ৫ থেকে ১২ বছর বয়সী, ৬ জন শিশুকে সমস্যার ধরন অনুযায়ী, সপ্তাতে ১ ঘণ্টা করে, প্রায় ১০ থেকে ১২ টি সেশনে, সম্পূর্ণ বিনামূল্যে ঔষধবিহীন মনোবৈজ্ঞানিক চিকিৎসা প্রদান করিব।

আপনি যদি গবেষণা কার্যক্রমে আপনার শিশুকে অংশ গ্রহন করান, তবে আপনাদের পরিচয় সম্পূর্ণ গোপন রেখে শুধু মাত্র তথ্যাদি গবেষণা কার্যক্রমে ব্যবহার করা হবে। আর এই গবেষণা কার্যক্রমের কারণে আপনার বা আপনার শিশুর কোন ধরনের শারীরিক বা মানসিক ক্ষতি হবার কোন সম্ভাবনা নেই। আরও উল্লেখ্য যে, এই কার্যক্রমে আপনার অংশগ্রহন সম্পূর্ণ আপনার ইচ্ছার উপর নির্ভরশীল এবং আপনি যেকোন সময় এই গবেষণা কার্যক্রম থেকে বিরত থাকিতে পারিবেন, যাহার জন্য আপনাকে কোন প্রকার দোষারূপ করা হবে না।

আমি এই গবেষণার গবেষক হিসাবে অঙ্গিকার করিতেছি যে, উপরোক্ত বিষয় সমূহ আমি মেনে চলিব এবং এ ব্যাপারে সকল প্রকার গোপনীয়তা রক্ষা করিব।

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আমি এই গবেষণা কার্যক্রমে সম্পূর্ণ সেচ্ছায় ও সজ্ঞানে অংশগ্রহনে সম্মতি প্রদান করিতেছি।

নামঃ
ঠিকানাঃ

Appendix-8

Description of Conducting Sessions

Case-P2

A total of 11 sessions were done with P2. These 11 sessions were done over a period of 108 days. The initial two sessions (Aa and Ab) were baseline assessments, one of this session was for formulation sharing and goal setting, fifth sessions were treatment sessions and the last three sessions were outcome sessions among them 1 immediate outcome session and two sessions were for follow up outcome. The appearance, behavior and emotional reaction of P2 and his parents were observed in every session, which helped with the assessment and treatment.

- **1st session** – P2 and his parent were introduced with the researcher and rapport was built up with them. They were told that this treatment would be used as a research purpose and P2's parent filled a consent form. To build up a rapport with P2 and to acquire information from his, creative therapy was used. They were educated about psychotherapy process. After that the therapist normalized P2's enuresis problem then both of them get hope. The expectations of P2 and his parents were asked. Information was gathered regarding P2's enuresis problem and others related problems by semi-structure interview. To gathers the baseline information P2 was given a self-monitoring chart and his parents were given a problem-recording chart as a homework assignment.

Therapist's Observation: P2 was a very smart and motivated child and was eager to solve his problem with the therapist. P2 attended the session with his father and they both showed interest towards psychotherapy.

- **2nd session (Aa)** – Feedback was taken from P2 and his parent regarding the enuresis problem. Previous week homework was checked for baseline data, which showed that P2's nocturnal enuresis occurred five times. Other than that, a baseline data regarding P2's academic and social performance, his behavior and parental attitudes toward his problem was collected. P2's parent informed the therapist about how they practiced toilet training with him. The score of P2's parents on Toilet Training Scale was 26 which indicated harsh practice and Attitude towards Enuresis score was 31 which indicated normal attitude. P2 and his parent rated on a scale of 0

to 100 (100 being high) about the condition of P2 with enuresis and other related problems. Regarding the present problem of nocturnal enuresis, P2 rated as 70, because his mother made a distance with him for this, and his parent rated it as 60. Besides these, his nail-betting problem was rated by P2 as 50 and his parent as 80. His fear in toilet was rated by P2 as 70 and his parent rated it as 70. At the end of this session, P2 was given a self-monitoring chart and his parents were given a problem-recording chart as a homework assignment.

Therapist's Observation: P2 was eager to show his homework to the therapist because he enjoyed colouring his star chart or self-monitoring charts. He also was enjoying a lot in providing information about his problems and environments. His parent also filled out ATE and TTP with a lot of enthusiasm.

- **3rd session (Ab)** – At first the feedback was taken from P2 and his parent, then homework was checked, which showed that the nocturnal enuresis was six times. After that, formulation was shared, treatment goals were set and finally homework was given. Previous week's homework was checked.

Therapist's Observation: When his case formulation was shared with P2 and parent, they accepted that formulation and P2 got relief that some one realised his problem. His father seemed guilty about the role of their relationship problem. Both of them were keenly eager to solve those problems.

- **4th session (B1)** - Feedback was taken from P2 and his parent regarding the enuresis problem. Previous week's homework was checked which showed that nocturnal enuresis was four times. To achieve the first two goals such as to reduce nocturnal enuresis following management was applied.

Psychoeducation: Psycho-education was given regarding the function of bladder and kidneys and how it is related to enuresis and was demonstrated by using water and balloons. They were informed that Bedwetting (also called nocturnal enuresis) is a common childhood problem. A child learns to control daytime urination as they become aware of their bladder filling. Once this occurs, the child then learns to consciously control and coordinate the contraction and relaxation of their bladder muscle. This generally occurs by four years of age. Control of night time's bladder function usually takes longer, and is not expected until a child is between five and seven years' old. Also they were educated on how enuresis can affect a child and his family and how it can contribute in causing other related problems for the patient.

Further psycho-education was given to the parent regarding their duties towards the purpose of treatment.

Systematic desensitisation: To overcome his fear in toilet, systematic desensitisation was used. At first, the hierarchy of toilet fear was listed by interviewing P2 and then P2 was relaxed through breathing relaxation and imagine a series of progressively more fearsome situation in toilet. This was done over and over. At the same time his parent recommended to locate the toilet easily by using lights in the bathroom and passages.

Schedule awakening: After motivating P2 to involve the management by proving psychoeducation, schedule awakening therapies aim to teach P2, how to recognize when his bladder is full during the daytime, in the hope that he can recognize this feeling during the night. Practice should include a self-awakening routine before bedtime every night. The therapist showed P2 and his parent how they can use an alarm clock every two hours to schedule P2 to use the toilet. At first, waking P2 just before the parent go to bed and systematically waking him after two hour and it followed in several following dry nights, until P2 awakens to urinate without support.

Reward system: For the better outcome, the parent was advised to use a start chart and a reward system if P2 was able to follow the schedule properly. P2 could record and observe successes, and this reward system should serve to P2 for achieving dry nights. The therapist negotiated the schemes of this system with P2 and his parent.

Cleanliness training: For increasing probability that involve P2 to take responsibility for managing the consequences of wetting his beds, at first P2 was motivated for cleaning himself when he wet his bed through distancing technique by using analogies of his friend. It was directed to the parent that if P2 wets his bed then he should be responsible to clean up the entire mess on his own.

Homework assignment: For further management procedure purpose, parent were also told to observe the amount of water consumption and the time difference P2 urinates after drinking water. For homework, P2 was given a self-monitoring chart and parents were given parent's recording chart.

Therapist's Observation: At the beginning of this session, P2 and parent were very motivated to learn new knowledge about this problem. They looked like more active to use that management. His father was worried about his own homework, because if

his mother stay with him it would be easy to find out. Then P2 take responsibility for that and his father got relief.

- **5th session (B2)** – The plan of this session was to take feedback from P2 and his parent, homework would be checked and further intervention was provided. For reducing nocturnal enuresis, the following management was applied.

Outcome of Previous Management: Frequency chart was checked which showed that nocturnal enuresis was reduced to two times. For this he was given five rewards from the reward system. According to the parent, from the beginning, P2 was excited to use the toilet and cleaning his beds. His father assumed that it would be possible for schedule waking.

Fluid restriction: The goal of this technique was to prevent overfilling the bladder during the night. To use fluid management, a parent previously prepared to keep a fluid intake diary, recording the amount of fluids consumed in a 24-hour period. Based on the total intake, a schedule can be created to spread fluids through the morning, afternoon, and evening. One recommendation is that 40 percent of total fluids should be offered in the morning, 40 percent in the afternoon, and only 20 percent in the evening. His parent instructed that evening fluids should be caffeine-free and no milk would be given.

Retention control training: Parent and P2 were then educated on retention control training. P2 was instructed to hold his urine for increasingly longer intervals during the day and the amount of urine voided at particular times during the day and night should be measured and recorded once weekly to track success. In this training, P2 should tell his parent when he feels the need to use the toilet and after three minutes from that time his parent will allow him to use the toilet. This process will help P2 to learn to hold his urine for three minutes, which will help him overcome nocturnal enuresis. If he can successfully retain his urine for the given three minutes then slowly his time will be increased to 6 minutes and eventually to 45 minutes. His parent was told to keep the reward system for this practice.

Homework assignment: For further management procedure purpose, P2 was given a self-monitoring chart and parents were given parent's recording chart as homework.

Therapist's Observation: In this session P2 and his parent were very pleased because his problem was somewhat solved.

- **6th session (B3)** –The aim of this session was as previous session such as feedback was taken from P2 and his parent regarding the enuresis problem, homework would be checked and further intervention was provided. In this session, P2 came with both parents that are why P2's mother was interviewed. To reach the goal, the following management was applied.

Outcome of Previous Management: Previous week's homework was checked which showed that nocturnal bed-wetting was only once. Parent felt he would overcome his problem very soon if he maintains fluid restriction. P2 was surprised that he was capable to hold his urine for 45 minutes.

Psychoeducation for the role of parent-child attachment: In this session, the quality and variety of parent-child attachment and how it could affect the child's mind was discussed by using different types of analogies.

Problem solving approaches: Then taking permission of P2, the picture of his heartstrings was shared with both parents and asked the reason of their position in there. At that time his parents felt responsible for that and seek help for what could they do for their marital problem? In that case, they were educated how to handle their marital problem instead of any verbal and physical fighting. Both of them were also explained with ABC model which means the antecedent, behavior and consequence of fighting. They were also recommended for marital psychotherapy session with other therapist.

Retention control training and fluid restriction: Parent and P2 were again educated on retention control training and fluid restriction for further treatment purpose. Parents were then counselled to continue the retention control practice and fluid restriction for next week.

Homework assignment: For further management procedure purpose, P2 was given a self-monitoring chart and parent were given parent' recording chart as homework.

Therapist's Observation: At the beginning, P2 expressed his happiness for two reasons. The first reason of his happiness was to overcome enuresis and the presence of his mother. At the end of the session, his parent seemed a bit guilty for their role and P2 also seemed shy, at this time his nail biting habit was increased, when heart string was shared.

- **7th session (B4)** – The target of this session was taking feedback from P2 and his parent, homework would be checked and the aim of this session was to apply advanced intervention to achieve the main goal and to prevent relapse.

Outcome of Previous Management: Feedback was taken and P2's parent said he didn't do any occurrence of nocturnal bed-wetting. P2 was claimed that his parent did not quarrel in the last week and his mother slept with him for two days.

Over-learning training: The therapist educated P2 and his parent on over-learning training. For this technique on the first day P2 is advised to drink 2 ounces (1 ounce = 30 millilitres) of water 15 minutes before going to sleep. If he is able to not wet his bed the first two days, then the amount to drink will be increased to 4 oz on the third day, 6oz on the fifth day and eventually increased to 7 and half oz. According to his age and bladder capacity 7 and half oz of water was the highest amount that can be given. However, if for any reason P2 wets his bed then the amount of drinking water given to him before bed will be decreased by 2 ounces accordingly. P2 seemed a little nervous about this therapy because he was not sure whether or not he would be successful at it. P2 felt less nervous after it was rationalized to him that this technique may seem difficult but it is very doable for him and it would help his from future relapse with his enuresis problem. P2's parent was also counselled to apply the reward system again for this technique.

Therapist's Observation: At the starting of the session, P2 was very cheerful and grateful because he was able to acquire the top prize for the reward system. At the ending of the session, P2 was nervous to do over learning procedure, but when his improvement was discussed and then he became happy. P2's parent also seemed nervous and he assumed that P2 could not maintain his progress through this procedure.

- **8th session (B5)** - This session was done after 10 days because he went to visit his granny's home with his mother. The target of this session was taking feedback from P2 and his parent, to check homework and to advise additional management procedures.

Outcome of Previous Management: In the beginning of the session feedback was taken from P2 and his parent. Previous week's homework was checked which showed that bed-wetting was done for three times. On the third day of last week, P2 could not retain his urine by drinking four-ounce water in his bedtime. However,

gradually he increased capacity to hold extra fluid before bedtime and maintain dryness. But when he took 7 and half ounce water, he could not maintain his dryness.

Over learning training: Parent and P2 were again educated on over learning. In this session, P2 also showed evidence of his previous success for increasing his confidence and ensure that he was capable to hold 7 and half-ounce of water before bedtime.

Psycho education about diet: In this session, psycho-education was given regarding diet, what's the function of fiber diet and it's role of constipation problem. It was provided for achieving the last goal such as to prevent constipation.

Habit reversal training: It was used for discouraging P2's nail biting habit and replaces it with a more constructive habit. In this case the components of Habit reversal training were intended to increase his nail biting awareness through pros and cons about nail biting and for developing a competing response to this, relaxation training was provided. This training was based on the presence of an impulsive urge, or sensation occurring before a nail bite. P2 was also trained how he could relax himself on that time instead of this urges. This involves replacing a nail biting with a competing response, a more comfortable or acceptable movement/sound, when P2 would feel that a covert urge was built.

Reward system: For the better outcome, the parent was advised again to use a start chart and a reward system when P2 would be able to overcome his habit. P2 could record and observe successes, and this reward system should serve to P2 for achieving success. The therapist negotiated the schemes of this system with P2 and his parent.

Homework assignment: At the end of the session homework was given for monitoring change of his enuresis and nail biting habit.

Therapist's Observation: At the beginning of the session, P2 seemed timid for his unsuccessfulness. But when his confidence increased, then he became pleased.

- **9th session (A1)** – This session was done after 11 days. Common procedure was followed as before. Therapist along with P2 and his parent all decided that the next session would be after 15 days as follow up session. For measuring outcome of the intervention (A1), regarding P2's academic and social performance, his behavior and parental attitudes toward his problem was collected. During this session, his parent

filled out Attitude towards Enuresis questionnaire and the score was 25 that indicated more positive.

Outcome of Previous Management: P2 did wet his bed only on the first day and was able to keep his bed dry for 10 remaining days continuously. His parent informed that his nail biting was reduced than before. Last 11 days he got three stars for changing his habit.

Again, P2 and her parent rated on a scale of 0 to 100, P2 rated himself 90 % better and her parent felt also 90% better.

Homework assignment: At the end of the session, homework was given for monitoring change. P1 was given a self-monitoring chart and parents were given parents' recording chart as homework.

Therapist's observation: P2 was a little bit happy for his progress and his parent was pleased for his improvement.

- **10th session (A2)**– First- follow up session was done after 15 days and in this session measuring outcome intervention (P2), regarding P2's academic and social performance, his behavior and parental attitudes toward his problem was collected. During this session, his parent filled out attitude towards enuresis questionnaire and the score was 25 which indicated a positive attitude.

Outcome of Management: P2 recorded a self-monitoring chart. There were no occurrences of enuresis. It was reported that he was able to be awake when he felt bladder pressure then he could use the toilet with out any help of his parents. Both P2 and his parent rated P2 as 100% improved with his problem.

Therapist's Observation: They gave the impression on P2's problem that it has improved so that they were so happy. P2 also seemed confident about himself.

- **11th session (A3)** – This session took place after one month. For measuring outcome of the intervention (A3), regarding P2's academic and social performance, his behavior and parental attitudes toward his problem was collected. During this session, his parent filled out attitude towards enuresis questionnaire. Score of which was 24, indicating a positive attitude. At the end of the session the entire problem and therapy from the beginning was discussed with P2 and his parent and they were all quite surprised that P2 was able to overcome his problem very quickly within 11 sessions. This was the last session with P2 and he was then terminated as a patient.

Therapist's Observation: For achieving the progress of P2, he and his parents were very much satisfied.

Case-3

Summary of Conducting Sessions:

A total of 9 sessions were done with P3. 9 sessions were done over a period of 102 days. The two initial sessions (Aa and Ab) were baseline assessment, one of this session was for formulation sharing and goal setting, four sessions were treatment session and the last two sessions were for follow up. Since P3's parents did not want to continue coming to the therapist, the last three sessions were done by the therapist at P3's home. The appearance, behavior and emotional reactions of P3 and her parent was observed in every session, which helped with the assessment and treatment.

- **1st session** –P3 and her parents were introduced with the researcher and a rapport was built up amongst them. They were told that this treatment will be used as a research purpose and P3's parents filled a consent form. To build up a rapport with P3 and to acquire information from her, creative therapy was used. They were educated about psychotherapy process. After the therapist normalized P3's enuresis problem, the expectations of P3 and her parents were asked and they were advised what the realistic outcome should be. Information was gathered regarding P3's enuresis problem and other related problems by semi-structured interview. To gather the baseline information, P3 was given a self-monitoring chart and her parents were given a problem-recording chart as a homework assignment.

Therapist's Observation: At the beginning of this session, P3 was not easygoing and felt a little shy. After using creative therapy 'My World' she became more relaxed and easygoing. She then started to explain her problem and she seemed to be very intellectual child. She was eager towards doing the homework given to her. P3's parents were supportive but were a bit impatient towards the length of the treatment.

- **2nd session (Aa)** – In this session, P3 came with her mother only. Feedback was taken from P3 and her parent regarding the enuresis problem. Previous week homework was checked for baseline data, which showed that P3's nocturnal enuresis occurred 6 times. Other than that, a baseline data regarding P3's academic and social performance, her behavior and parental attitudes toward her problem was collected. P3's parent informed the therapist on how they practiced toilet training with her. The score of P3's parent Toilet Training Scale was 42, that indicated lack in toilet training, and Attitude towards Enuresis score was 40, which indicated negative

attitudes. P3 and her parent rated on a scale of 0 to 100 (100 being highest) the perception of P3 to enuresis and other related problems. Regarding the present problem of nocturnal enuresis, P3 rated it as 75, and her parent rated it as 90. Beside these, her stubborn and short temperament problem was rated by P3 as 70 and her parent as 70, and her nagging was rated by P3 as 60 and her parents as 80. At the end of this session, P3 was given a self-monitoring chart and her parents were given a problem-recording chart as a homework assignment.

Therapist's Observation: P3 did her homework nicely and was very motivated to solve her problem. However, her parents did not like doing the homework at all.

- **3rd session (Ab)** – At first the feedback was taken from P3 and her parent, then homework was checked, which showed that the nocturnal enuresis was six times. After that, formulation was shared, treatment goals were set and finally homework was given. Previous week's homework was checked.

Therapist's Observation: When her case formulation was shared with P3 and parent, they accepted that formulation. Both of them were keenly occupied for solving those problems.

- **4th session (B1)** - Feedback was taken from P3 and her parent regarding the enuresis problem. Previous week homework was checked which showed that nocturnal enuresis was five times. To achieve the first two goals such as to reduce nocturnal enuresis and to reduce the fear of darkness and toilet, following management was applied.

Psychoeducation: Psycho-education was given regarding the function of bladder and kidneys and how it is related to enuresis and was demonstrated by using water and balloons. They were informed that Bedwetting (also called nocturnal enuresis) is a common childhood problem. A child learns to control daytime urination as they become aware of their bladder filling. Once this occurs, the child then learns to consciously control and coordinate the contraction and relaxation of their bladder muscle. This generally occurs by four years of age. Control of night time's bladder function usually takes longer, and is not expected until a child is between five and seven years' old. Also they were educated on how enuresis can affect a child and her family and how it can contribute in causing other related problems for the patient. Further psycho-education was given to the parent regarding their duties towards the purpose of treatment.

Systematic desensitisation: To overcome her fear of toilet, systematic desensitisation was used. At first, the hierarchy of toilet fear was listed by interviewing P3 and then P3 was relaxed through breathing relaxation and imagine a series of progressively more fearsome situation in toilet. This was done over and over. At the same time her parent suggested to locate the toilet easily by using lights in the bathroom and passages.

Dry bed training: The goal of the therapist during this session was to educate the patient and her parents about dry bed training, which included schedule awakening, cleanliness, and retention control training. P3 and her parents were motivated to give a little time and effort for dry bed training because there would be a little bit of disturbance in their sleep. At the first night, P3's parents would have to get up every one hour to check if P3 wet her bed and if she does not wet her bed, P3 would not have to wake up from her sleep. However, if she does wet the bed, P3 would have to get up and clean up the entire mess and then go to the toilet and try to urinate again. If she is able to urinate in the toilet at that time, she would be able to go to bed and if not, then she would have to drink a glass of water and then go to bed. On the second night, previous procedure would be followed except the time of checking for bed wetting would be changed from one hour to two hours and on the third night the time would increase to two and half hours. If P3 wets her bed twice in that week then the entire dry bed training procedure would be repeated from the beginning.

Reward system: For the better outcome, the parents were advised to use a start chart and a reward system if P3 was able to follow the procedure properly. P3 could record and observe successes, and this reward system should serve to P3 for achieving dry nights. The therapist negotiated the schemes of this system with P3 and her parents.

Homework assignment: For further management procedure, P3 was given a self-monitoring chart and parent was given parent's recording chart for homework assignment.

Therapist's Observation: At the beginning of this session, P3 was motivated to learn new knowledge about this problem. She looked like more active to use that management. But her parent was worried about the procedures of management. Then P3 took responsibility for herself with the support of alarm clock and her parent got little bit relief.

- **5th session (B2)** – The plan of this session was taking feedback from P3 and her parent, homework would be checked and further intervention was provided.

Outcome of Previous Management: Frequency chart was checked which showed that nocturnal enuresis was three times. For this he was given four rewards from the reward system. According to the parent, from the beginning two days, P3 was excited to use the toilet and cleaning her beds, but after that she became tired and started to depend on mother for awakening herself. Her mother tried to follow the procedure.

Dry bed training: Since P3 did wet her bed more than twice in the last week, this week she was encouraged to try dry bed rehearsal and discuss it again.

Problem solving skills and Role-play: For achieving the treatment goal reducing stubborn behavior and short temperament, pros and cons were used. In this session, P3 was asked what types of benefit she got from stubborn behaviour. P3 was reported that she fulfils her demand and wishes by it and after that she was asked to tell what the disadvantages of stubborn behaviour were. In that case, she informed that some time mother yelled, brother teased her for that and she lost her friendship. Then she realised and asked what could she do instead of stubborn behaviour? In that time, therapist conducted a role-play by using one dolls and three pencils as roles of a situation. The doll acted as a stubborn and short-tempered child and who always did nagging and red pencils played mother role, green as father and blue as brother roles. When doll was demanding Burger for lunch and mother pencil refused it, doll started nagging towards father and brother teased her for this behaviour. At that moment doll declared that without burger she could not take any lunch, then mother yelled at her and she felt sad. P3 was asked to advise the doll's reversed role and then she advised the doll if doll could request her mother for burger, if mother refused it, further she could asked it would be possible in this week. Then mother agreed for it. When the doll played reverse role in this situation, then she felt much better than first.

Reward system and 'When and Then' rules: This was used to motivate P3 towards modifying her behaviour. For example, when she would be able to behave un-stubbornly, then P3 would be rewarded with a star. P3 became a little bit more encouraged when she behaved appropriately then everyone of her family would be more loving with her and classmates would look at her differently. However, whether or not she would be able to do this seemed questionable. Then her bed-wetting

problem was discussed which after trying she was being able to slowly become successful.

Homework assignment: At the end of the session P3 was given a self-monitoring chart for bed-wetting and different star chart for acceptable behavior.

Therapist's Observation: In this session P3 and her parent were very pleased because her problem was somewhat solved.

- **6th session (B3)** –This session was done after 17 days because of P3's examination. The target of this session was to take feedback from P3 and her parent, homework would be checked and the aim of this session was to apply advanced intervention to achieve the main goal and to prevent relapse.

Outcome of Previous Management: Previous week homework was checked which showed that nocturnal bed-wetting was only once. P3 was surprised that by dry bed training she was able to have a 5-hour gap instead of two hours in the last 17 days. Her parent informed that she was also behaviourally improved and she earned seven stars in the reward system.

Over-learning training: The therapist educated P3 and her parent in over-learning training. For this technique on the first day P3 was advised to drink 4 ounces (1 ounce = 30 millilitres) of water 15 minutes before going to sleep. If she is able to not wet her bed on the first two days, then the amount to drink would be increased to 6 ounce on the third day, 8 ounce on the fifth day and eventually it would be increased up to 11 ounce. According to her age and bladder capacity 11 ounce of water was the highest amount that can be given. However, if for any reason P3 wets her bed then the amount of drinking water given to her before bed would be decreased by 2 ounces accordingly. P3's parent was also counselled to apply the reward system again for this technique.

Psychoeducation about urinary track infection: To build-up awareness, psychoeducation about urinary track infection was provided to P3 and her parent. What it is and how it occurs and how it impact on enuresis was discussed.

Homework assignment: For further management procedure purpose, P3 was given a self-monitoring chart as before.

Therapist's Observation: At the beginning, P3 expressed her gladness for two reasons. The first reason of her happiness was overcoming enuresis and problem behaviour. By end of the session, P3 seemed a little nervous about this therapy

because she was not sure whether or not he would be successful at it because when she was attacked of urinary infection then she needed to drink too much water and wet her bed regularly. P3 felt less nervous after it was rationalized to her that this technique may seem difficult but it is very doable for her and it will help her from future relapse with her enuresis problem.

- **7th session (A1)** – This session was done after 12 days, because P3's parents could not get time to bring her in BSSMMU. P3 and her parent were requested by the therapist to come to her home for taking the session, as usual procedures were followed as before. Therapist along with P3 and her parents all decided that the next session would be after 15 days as follow up session. For measuring outcome of the intervention (A1), regarding P3's academic and social performance, her behavior and parental attitudes toward her problem was collected. During this session, her parent filled out Attitude towards Enuresis questionnaire and the score was 31 that indicate more positive.

Outcome of Previous Management: P3 did wet her bed only on the last day when she took 11 ounce water and was able to keep her bed dry for 11 days continuously. Her parents said that P3 eagerly applied the instruction given by the psychotherapist than before.

Therapist's Observation: At the starting of the session, P3 was very cheerful and grateful in this session because he was able to acquire the top prize for the reward system and therapist was in her home.

- **8th session (A2)** – First- follow up session was done after 15 days in P3's home and in this session measuring outcome intervention (A1), regarding P3's academic and social performance, her behavior and parental attitudes toward her problem was collected. During this session, her parent filled out attitude towards enuresis questionnaire and the score was 28.

Outcome of Management: It was reported that once within fifteen day P3 had an occurrence of incontinence in her sleep and awoke right away to clean herself and use the toilet on her own. It was reported that she was able to awake when she felt bladder pressure then she became used to the toilet with out any help of her parent. Both P3 and her parent rated the condition as 90% improved than previous condition.

P3's mother also reported that P3 does not behave stubbornly anymore and she would be able to stay in her cousin's house without any hesitation. P3 reported that she was enjoying a lot and felt confident.

Therapist's Observation: They gave the impression about P3's problem that it improved so much that they became very happy. P3 also seemed confident about herself.

▪ **9th session (A3)** – This session took place after one month. For measuring outcome of the intervention (A3), regarding P3's academic and social performance, her behavior and parental attitudes toward her problem was collected. During this session, her parent did not filled out Attitude towards Enuresis questionnaire due to their busyness for household activities. At the end of the session the entire problem and therapy from the beginning was discussed with P3 and she was all quite surprised that P3 was able to overcome her problem very quickly, within 9 sessions. In this session, P3 was terminated as a patient.

Therapist's Observation: For maintaining the progress of P3, he and her parent were very much satisfied.

Case-P4

Summary of Conducting Sessions:

A total of 9 sessions were done with P4. There were 9 sessions done over a period of 75 days. The first two sessions were baseline assessment, one session was for formulation sharing and goal setting, four sessions were treatment session and the last two sessions was for follow up. Since P4's parents did not want to continue coming to the therapist, the last three sessions were done by the therapist at P4's home. The appearance, behavior, emotional reaction of P4 and his parents was observed in every session, which helped with the assessment and treatment.

A total of 11 sessions were done with P2. These 11 sessions were done over a period of 108 days. The first two sessions (Aa and Ab) were baseline assessments, one of this session was for formulation sharing and goal setting, fifth sessions were treatment sessions and the last three sessions were outcome sessions among them 1 immediate outcome session and two sessions were for follow up outcome. The appearance, behavior and emotional reaction of P2 and his parents were observed in every session, which helped with the assessment and treatment.

- **1st session**—P4 and his parents were introduced with the researcher and a rapport was built up amongst them. They were told that this treatment will be used as a research purpose and P4's parents filled a consent form. To build up rapport with P4 and to acquire information from his, creative therapy was used. They were educated about psychotherapy process. After that the therapist normalized P4's enuresis problem, the expectations of P4 and his parents were asked and they were informed what the realistic outcome should be. Information was gathered regarding P4's enuresis problem and other related problems by semi-structured interview. To gather the baseline information, P4 was given a self-monitoring chart and his parents were given a problem-recording chart as a homework assignment.

Therapist's Observation: At the beginning of this session P4 was not easygoing and felt a little hesitant and seemed depressed. After using creative therapy 'My World', where his world was created with all types of favourite items, then he became more relaxed and easygoing. He then started to explain his problem. He was eager towards doing the homework given to him. P4 and his parent seemed quite drowsy and tired

during the session. P4's parents, especially his father, were supportive but the father was quite impatient towards the length of the treatment.

- **2nd session (Aa)** – Feedback was taken from P4 and his parent regarding the enuresis problem. Previous week's homework was checked for baseline data, which showed that P4's nocturnal enuresis occurred six times. Other than that, a baseline data regarding P4's academic and social performance, his behavior and parental attitudes toward his problem was collected. P4's parent informed the therapist on how they practiced toilet training with his. The score of P4's parent Toilet Training Scale was 49, which indicated poor toilet training and Attitude towards Enuresis score was 41, which indicated extreme negative attitude towards his bed wetting problem. P4 and his parent rated on a scale of 0 to 100 (100 being highest) the perception of P4 to enuresis and other related problems. Regarding the present problem of nocturnal enuresis, P4 rated it as 90, while his parent rated it as 95. His low mood was rated by P4 as 75 and by the parent as 50. Beside these, his social avoidance problem was rated by P4 as 70 and by his parent as 80. Regarding his school refusal problem P4 rated it as 60 and parent rated it as 80. At the end of this session P4 was given a self-monitoring chart and because of P4's parent's unwillingness, they were not given any chart as homework assignment.

Therapist's Observation: P4 was ready to show his homework to the therapist, because he was getting pleasure from colouring his star chart or self-monitoring charts. He was also enjoying a lot for providing information about his problems and situation. However, his parent appeared quite reluctant for filling two questionnaires.

- **3rd session (Ab)** – At first the feedback was taken from P4 and his parent, then homework was checked, which showed that the nocturnal enuresis happened for five times. After that, formulation was shared, treatment goals were set and finally homework was given.

Therapist's Observation: When his case formulation was shared with P4 and parent, they accepted that formulation and P4 got relieve that some one understands his problem. His parent also understood the role of their relatives in aggravating his enuresis problem. P4 was devotedly engaged for solving his enuresis and his related problems.

- **4th session (B1)** - Feedback was taken from P4 and his parent regarding the enuresis problem. Previous week's homework was checked which showed that

nocturnal enuresis was seven times in the last eight days. To achieve the first goal, such as, to reduce nocturnal enuresis and to reduce the fear of darkness and toilet, following management was applied.

Psychoeducation: Psycho-education was given regarding the function of bladder and kidneys and how it is related to enuresis and was demonstrated by using water and balloons. They were informed that bedwetting (also called nocturnal enuresis) is a common childhood problem. A child learns to control daytime urination as they become aware of their bladder filling. Once this occurs, the child then learns to consciously control and coordinate the contraction and relaxation of their bladder muscle. This generally occurs by four years of age. Control of night time's bladder function usually takes longer, and is not expected until a child is between five and seven years old. Also they were educated on how enuresis can affect a child and his family and how it can contribute in causing other related problems for the patient. Further psycho-education was given to the parent regarding their duties towards the purpose of treatment.

Dry bed training: The goal of the therapist during this session was to educate the patient and his parents about dry bed training, which included schedule awakening, cleanliness, and retention control training. P4 was matured and motivated to give a little time and effort for dry bed training because there would be a little bit of disturbance in their sleep. At the first night, P4's parents would have to get up every one hour to check if P4 made his bed wet and if he does not wet his bed, P4 would not have to awake from his sleep. However, if he does wet the bed, P4 would have to get up and clean up the entire mess and then go to the toilet and try to urinate again. If he is able to urinate in the toilet at that time, he would be able to go to bed and if not, then he would have to drink a glass of water and then go to bed. On the second night, previous procedure would be followed except the time of checking for bed wetting would change from one hour to two hours and on the third night the time would be increased to two and half hours. If P4 wets his bed twice in that week then the entire dry bed training procedure would be repeated from the beginning.

Reward system: For the better outcome, the parents were advised to use a star chart and a reward system if P4 was able to follow the procedure properly. P4 could record and observe successes, and this reward system should serve to P4 for achieving dry nights. The therapist negotiated the schemes of this system with P4 and his parents.

Focusing positive: Because of P4 always selectively attend to negative aspects of his situations and then criticised himself, so this technique was used to overcome his low mood. In this method, P4 and his parent was instructed to involve mildly challenging activities, such as helping to prepare his youngest brother's homework and provide a support to his mother's house hold activities etc. and all of them were asked to notice his positive sides of all performances.

Homework assignment: For further management procedure purpose P4 was given a self-monitoring chart for homework assignment.

Therapist's Observation: From the beginning of this session, P4 was enthused to learn new knowledge about this problem. He looked lively as he used that management. But his parent felt troubled to manage P4's bedwetting problem at night. Then responsibility was given to P4 for managing himself with the support of alarm clock and his parent got little bit relief.

- **5th session (B2)** – The plan of this session was to take feedback from P4 and his parent, homework was checked and further intervention was provided.

Outcome of Previous Management: Frequency chart was checked which showed that nocturnal enuresis was four times in the last nine days. For this he was given three rewards from the reward system. According to the parent, from the beginning, P4 was excited to use the toilet and cleaning his beds but when he failed to control himself from bedwetting then he became frustrated. In that time his younger brother supported him through positive remarks. P4 said that now he try to find positive feedback from others and also himself.

Dry bed training: Since P4 did wet his bed more than twice in the last eight days, so this week he was encouraged to try dry bed rehearsal and to discuss it again.

Psychoeducation about fluid consumption: To reduce his urinary track infection, P4 and his parent were given psychoeducation about water consumption. In this section, the role of water in human body and the impact of its deficiency was discussed.

Social skill training and Role-play: To overcome his social and school avoidance activities, P4 was given social skill training. In this training, P4 was trained how to communicate each other, what types of initiative was taken to communicate others and how it maintained positively, how he shared his own feelings to others without hearting anybody. All of those situations were pictured through role-playing.

Pros and cons: It was used to both his parents for only their conflict. At first, therapist found the conflicting issues of them and discussed how to manage those without any arguments. After that what's the impact of their arguments on their children was reviewed. Then they realised and reassured that it would not occur anymore.

Relaxation training: For achieving the last goal, to reduce anxiety or tension, imagery relaxation was used. P4 was trained up on how to imagine a good scenario, place himself in a relax way on that situation, and then try to feel it.

Homework assignment: At the end of the session P4 was given a self-monitoring chart for bed-wetting and different star chart for social behavior.

Therapist's Observation: In this session P4 and his parent were quite pleased about knowing all of their problems which they failed to notice earlier.

- **6th session (B3)** – This session was done after 7 days, because P4's father could not get time to bring him in Dhaka Community Hospital. P4 and his parent were requested by the therapist to come to her home for taking the session. Because of poor outcome of dry bed training, supplementary interventions were applied.

Outcome of Previous Management: Frequency chart was checked which revealed that nocturnal enuresis was three times in last seven days. For this he was given four rewards from the reward system. According to P4, he took initiative to introduce himself with other relatives and classmates. Last week he started to play with his neighbour's children and enjoyed a lot.

Schedule awakening: Practice should include a self-awakening routine before bedtime every night. The therapist showed P4 and his parent how they can use an alarm clock every two hours to schedule P4 to use the toilet. At first, waking P4 just before the parent go to bed and systematically waking him after two hour which was carried out in the following dry nights, until P4 awakens to urinate without support.

Cleanliness training: For increasing possibility that involve P4 to take responsibility for managing the consequences of wetting his beds as before, it was also directed to the parent that if P4 wets his bed, then he should be responsible to clean up the entire mess on his own.

Retention control training: Parent and P4 were then also educated on retention control training. In this training, during day time, P4 should tell his parent when he feels the need to use the toilet and after three minutes from that time his parent will allow his to use the toilet. This process will help P4 to learn to hold his urine for three

minutes, which will help him overcome nocturnal enuresis. If he can successfully retain his urine for the given three minutes, then slowly his time will be increased to 6 minutes and eventually to 45 minutes.

Homework assignment: At the end of the session, homework was given like the previous session.

Therapist's Observation: P4 was happier during this session because he slightly over come his other problems and nocturnal enuresis decreased significantly. Also he became more confident that he would soon be able to overcome his bedwetting problem totally.

- **7th session (B4)** –The target of this session was taking feedback from P4 and his parent, homework would be checked and the aim of this session was to apply advanced intervention to achieve the main goal and to prevent relapse.

Outcome of Previous Management: Frequency chart was checked which showed that nocturnal enuresis was only one time. According to the parent, from the beginning, P4 was eager to use the toilet and cleaning his beds. His parent assumed that it would be easier to maintain progress than dry bed training.

Over-learning training: The therapist educated P4 and his parent on over-learning training. For this technique on the first day P4 is advised to drink 4 ounces (1 ounce = 30 millilitres) of water 15 minutes before going to sleep. If he was able to not wet his bed the first two days, then the amount to drink would be increased to 6 oz on the third day, 8oz on the fifth day and eventually increased to 13 oz. According to his age and bladder capacity 13 ounce of water is highest number that can be given. However, if for any reason P4 wets his bed then the amount of drinking water given to him before bed would be decreased by 2 ounces accordingly. P4's parent was also counselled to apply the reward system again for this technique.

Homework assignment: In the last part of the session homework was given to P4 for monitoring change.

Therapist's Observation: At the beginning of this session, P4 seemed very happy, because he was able to acquire maximum stars on his chart. At the end of the session, P4 was anxious for over learning procedure, but when his improvement was presented through pictures, he became pleased.

- **8th session (A1)** – This session was done after 9 days due to P4's examination. Other procedures in the session were followed as before. Therapist along with P4's

parents all decided that the next session would be after 15 days as follow up session. For measuring outcome of the intervention (A1), regarding P4's academic and social performance, his behavior and parental attitudes toward his problem was collected. During this session, his parent filled out Attitude towards Enuresis questionnaire and the score was 33 that indicated quite normal attitudes to enuresis.

Outcome of Previous Management: P4 had only wet his bed the last day when he took 12 ounce of water and was able to keep his bed dry for 8 days continuously. His parents said that P4 eagerly applied the therapist's all instruction than before. P4 was more confident about himself than before.

Therapist's Observation: At the starting of the session, P4 was very cheerful and grateful in this session, because he was able to acquire badminton as the top prize for the reward system.

- **9th session (A2)** – It was the first and final-follow up session and that was done after 20 days in P4's home and in this session measuring outcome intervention (A2), regarding P4's academic and social performance, his behavior and parental attitudes toward his problem was collected. Therapist along with P4's parents, all decided that this session was the last session. During this session, his parent filled out attitude towards enuresis questionnaire and the score was 32, which indicates quite normal attitudes.

Therapist's Observation: They gave the impression that P4's problem improved so much that they were very happy. P4 seemed confident about himself.

Case-P5

A total of 10 sessions were done with P5. These were 10 sessions done over a period of 104 days. The first two sessions were baseline assessment, one session was for formulation sharing and goal setting, four sessions were treatment session and the last two sessions was for follow up. Since P5's parents did not want to continue coming to the therapist, the last four sessions were done by the therapist at P5's home. The appearance, behavior, emotional reaction of P5 and his parent was observed in every session, which helped with the assessment and treatment.

- **1st session** –P5 and his parent were introduced with the researcher and a rapport was built up amongst them. They were told that this treatment would be used for a research purpose and P5's parent filled a consent form. To build up rapport with P5 and to acquire information from him, creative therapy was used. They were educated about psychotherapy process. After the therapist normalized P5's enuresis problem through discussing the prevalence rate. The expectations of P5 and his parents were asked and they were advised what the realistic outcome should be. Information was gathered regarding P5's enuresis problem and other related problems by semi-structured interview which was give in Appendix-1. To gather the baseline information P5 was given a self-monitoring chart and his parents were given a problem-recording chart as a homework assignment.

Therapist's Observation: From the beginning of this session P5 was easygoing and felt a little bit hesitant about his problem. But within ten minutes he lost his hesitation and moved objects one place to anther. P5 and his parent were very willing to take home their assigned homework.

- **2nd session (Aa)** – In this session, P5 came with his mother only. Feedback was taken from P5 and his parent regarding the enuresis problem. Previous week homework was checked for baseline data, which showed that P5's nocturnal enuresis occurred 5 times. Other than that, a baseline data regarding P5's academic and social performance, his behavior and parental attitudes toward his problem was collected. P5's parent informed the therapist on how they practiced toilet training with him. The score of P5's parent Toilet Training Scale was 42 that indicated poor of toilet training and Attitude towards Enuresis score was 41, which point out a negative attitude towards enuresis. P5 and his parent also rated on a scale of 0 to 100 (where, 100 worst condition) about the condition of P5 with enuresis and other related problems.

Regarding the present problem of nocturnal enuresis, P5 rated as 60, because his eldest brother made a distance with him for this, and his parent rated it as 80. Beside these, his unrealistic demanding problem was rated P5 as 60% and his parent rated it as 80%. Regarding his irresponsible behaviours, P5 was rated as 70% and his parent rated it as 80%. P5 also rated his problem behavior such as projecting others as 70% and his parent rated it as 75%. Beside these, his restless behaviour was rated P5 as 80% better with it and his parent rated as 90%. At the end of this session, P5 was given a self-monitoring chart and his parent was given a problem-recording chart as a homework assignment.

Therapist's Observation: P5 did his homework nicely and was eager to show his homework to the therapist because he wanted to prove that his mother useless blamed himself with therapist. He also felt curiosity about therapy session and spontaneously providing information about his problems and environments. His parent also filled out ATE and TTP with a lot of enthusiasm.

- **3rd session (Ab)** – At first the feedback was taken from P5 and his parent, then previous homework was checked, which showed that the nocturnal enuresis was five times. After that, formulation was shared, treatment goals were set and finally homework was given.

Psychoeducation: For understanding the enuresis, psycho-education was given to P5 and his parent. It was concerning the function of bladder and kidneys, how it is related to enuresis and was demonstrated by using water and balloons. They were informed that bedwetting (also called nocturnal enuresis) is a common childhood problem. A child learns to control daytime urination as they become aware of their bladder filling. Once this occurs, the child then learns to consciously control and coordinate the contraction and relaxation of their bladder muscle. This generally occurs by four years of age. Control of bladder function during night time usually takes longer, and is not expected until a child is between five and seven years old. Also they were educated on how enuresis can affect a child and his family and how it can contribute in causing other related problems for the patient. Further psycho-education was given to the parent regarding their responsibility towards the purpose of treatment.

Therapist's Observation: When his case formulation was shared with them, the parents of P5 accepted that formulation and at first P5 did not want to accept his part

of this formulation but when it was explained with out blaming himself, and then he accepted it without protest. When psychoeducation was given, then P5 really showed his interest for solving those problems.

- **4th session (B1)** - Feedback was taken from P5 and his parent regarding the enuresis problem and previous week's homework was checked. To achieve the first goal such as to reduce nocturnal enuresis, following management was applied.

Outcome of Previous Management: Frequency chart was checked which showed that his bedwetting incidence occurred four times in the last week.

Schedule awakening: After motivating P5 to involve in the management, schedule awakening therapy was aimed to teach P5, how to recognize when his bladder is full during the daytime, in the hope that he can recognize this feeling during the night. Practice should include a self-awakening routine before bedtime every night. The therapist showed P5 and his parent how they can use an alarm clock every two hours to schedule P5 to use the toilet. At first, P5 was waked just before the parent go to bed and systematically waking him after two hour and it followed in several following dry nights, until P5 would be able to awaken to urinate without support.

Cleanliness training: For increasing probability that involve P5 to take responsibility for managing the consequences of wetting his beds. At first P5 was motivated to cleaning himself when he wet his bed through distancing technique by using analogies of his sister. It was directed to the parent that if P5 wets his bed then he should be responsible to clean up the entire mess on his own.

Reward system: For the better outcome, the parents were advised to use a star chart and a reward system if P5 was able to follow the procedure properly. P5 could record and observe successes, and this reward system should serve to P5 for achieving dry nights. The therapist negotiated the schemes of this system with P5 and his parents.

Homework assignment: For further management procedure purpose P5 was given a self-monitoring chart and parent were given parent's recording chart for homework assignment.

Therapist's Observation: In this session, P5's parent was encouraged to learn new information about enuresis from the starting to ending. His mom looked like more active to use that management. But P5 was nervous about the activities of management. In that case P5 was ensured that it might bring better outcome for his problem.

- **5th session (B2)** – The plan of this session was taking feedback from P5 and his parent, homework to check and to get further intervention.

Outcome of Previous Management: Frequency chart was checked which showed that nocturnal enuresis was two times. For this he was given five rewards from the reward system. According to the parent, from the beginning, P5 wanted to depend on mother for awakening himself and did not wanted to clean himself. But his mother tried to follow the instructions. Then P5 was motivated to use the toilet and to clean his bed for getting star on star chart and to fulfil his desire.

Retention control training: Parent and P5 were then educated on retention control training. P5 was instructed to hold his urine for increasingly longer intervals during the day and the amount of urine voided at particular times during the day and night should be measured and also recorded the duration of time between fluid intake and voiding for tracking success. In this training, P5 should tell his parent when he feels the need to use the toilet and after three minutes from that time his parent would allow him to use the toilet. This process would help P5 to learn to hold his urine for three minutes, which would help to overcome his nocturnal enuresis. If he could successfully retain his urine for the given three minutes then slowly his time would be increased to 6 minutes and eventually to 45 minutes. His parent was told to keep the reward system for this practice.

Reward system and 'When and Then' rules: This was used to motivate P5 towards modifying his behaviour. For example, when he would accept or share his fault to others, then P5 would be rewarded with a star. P5 became a little bit more encouraged when he behaved appropriately, as everyone of his family then would be more loving with him, and he would then be more accepted by others.

Praise-ignore formula: To reduce his unrealistic demand, this formula was used. In this technique parent of P5 was trained how to praise his realistic demand and how to ignore his unrealistic demand, such as demanding a new badminton within a week while still he had a new badminton. It was explained by an example; such as when P5 demand to play TV game rather than preparing his homework, then his mother would ignore him, whenever he did his homework. If when P5 wanted to play that TV game after finishing his homework, then the mother praises him verbally and allowed his demand.

Behavioral experiment: To motivate him for changing his impractical thoughts, such as, 'all my wishes become true' and 'my parent must fulfil my all demand' behavioral experiment was used. In this experiment, P5 was asked to choose five of his friends and five of his relatives at first, then he was instructed to ask a question, 'can they fulfil all of their demand by themselves or by their parents'? He said that he goes majorities' comments of this experiment.

Homework assignment: At the end of the session P5 was given a self-monitoring chart for bed-wetting and different star chart for acceptable behavior.

Therapist's Observation: In this session P5 and his parent were very pleased because his problem was somewhat reduced. But P5 seemed quite anxious about how he would be able to hold his urine and how he would fulfil his any desire through behavioural experiment.

- **6th session (B3)** –This session was done after 15 days because of P5's examination. The target of this session was to take feedback from P5 and his parent, to check homework to apply advanced intervention to achieve the main goal and to prevent relapse.

Outcome of Previous Management: Previous week homework was checked which showed there was no occurrence of bedwetting in the last fifteen days. P5 was surprised that by retention control training, he was able to hold his urine on 45 minutes instead of three minutes in the last 15 days. His parent informed that he was also improved behaviourally and he would report to his mom about his fault.

Over-learning training: The therapist educated P5 and his parent on over-learning training. For this technique on the first day P5 was advised to drink 4 ounces (1 ounce = 30 millilitres) of water 15 minutes before going to sleep. If he is able to not wet his bed in the first two days, then the amount to drink would be increased to 6 oz on the third day, 8oz on the fifth day and eventually it would be increased to 12 and half ounce. According to his age and bladder capacity, 12 and half ounce of water was the highest amount that could be given. However, if for any reason P5 wets his bed then the amount of drinking water that given to him before his bed time would be decreased by 2 ounces. P5's parent was also counselled to apply the reward system again for implementing this technique.

Problem solving: To achieve the final goal, five steps problem solving training was provided for reducing his restless behaviour. As P5 was in his late childhood, so it

was suitable for him. In this intervention, P5 and his parent was trained on how to identify his problems, which they commonly suffered in their family such as cleaning bedrooms, quarrels with sibling, school results, finishing homework etc. They were then counselled in how to deal one problem at a time in an unemotional way, progressing through five steps. At first both of them were informed how to define the problem, then how to suggest solutions, after that how to evaluate the solution and negotiate the compromise, and next, how to implement the solution and finally, how to verify the outcome or consequence.

Relaxation: Beside the problem solving training, P5 was also trained how to relax his mind and body through breathing.

Homework assignment: At the end of the session P5 was given a self-monitoring chart for bed-wetting and different star chart for restless behavior.

Therapist's Observation: At the starting of the session, P5 was very cheerful and grateful in this session, because he was able to acquire the top prize for the reward system and the therapist was in his home. By the end of the session, P5 seemed a little nervous about this therapy, because he was not sure whether or not he would be successful at it which aroused due to his low self esteem. After it was rationalized to him that this technique may seem difficult but it would be very achievable for him and it would help him from experiencing future relapse with his enuresis problem.

- **7th session (B4)** – This session was done after 9 days, because P5's parent could not get time to bring him in BSSMMU for his sister's sickness. P5 and his parent requested the therapist to come to his home for taken the session. Usual procedures were followed as before.

Outcome of Previous Management: It was found that P5 did wet his bed two times in the last day when he took 12 and half ounce water and was able to keep his bed dry for 7days continuously. His parents said that P5 was eager to apply the therapist's instruction than before. P5 told that he felt inspiration due to his progress.

Over learning training: Parent and P5 were again educated on over learning. In this session, P5 also showed evidence of his previous success for increasing his confidence and then P5 ensured the therapist that he was capable to hold 12 and half-ounce water before bedtime.

Staircase to Success: Since P5 is an intelligent child and likes cartoon; creative therapy 'Staircase to Success' was used to help reduce his irresponsible behavior. At

the bottom of the staircase his current behavior of unwillingness to take any responsibility in himself and family was portrayed. The next stair was to take responsibility of his reading materials and toys. The next stair was to take responsibility of his room. His mom ensured that he was allowed to make his room as his choice. At the top of the staircase was his willingness to help his mom in household activities, such as, washing aquarium, feeding fish.

Homework assignment: At the end of the session P5 was given a self-monitoring chart for bed-wetting and different star chart for responsible behavior.

Therapist's Observation: At the beginning of the session, P5 seemed shy for his failure to hold extra fluid. But when it was normalised, then he became pleased.

- **8th session (A1)** – This session was done after 7 days. Usual procedures were followed as before. Therapist along with P5's parents all decided that the next session would be after 15 days, as follow up session. For measuring outcome of the intervention (A1), regarding P5's academic and social performance, his behavior and parental attitudes toward his problem was collected. During this session, his parent filled up Attitude towards Enuresis questionnaire and the score was found 32, indicating normal or neutral attitudes.

Outcome of Previous Management: P5 did not wet his bed in the last seven days. His parents said that P5 eagerly applied the therapist's all instructions than before. His parent informed that P5 was more obedient and responsible than before. Both of them rated his overall progress as 100 %.

Therapist's Observation: At the starting of the session, P5 was very cheerful and grateful in this session, because he was able to obtain the top prize for the reward system. His parent was so happy that her child was successful in modifying himself up to her expectation.

- **9th session (A2)** – It was the First follow up session and that was done after 15 days in P5's home and in this session the outcome of intervention (A2) was measured. These measures included P5's academic and social performance, his behavior and parental attitudes toward his problem. During this session, his parent filled up attitude towards enuresis questionnaire and the score was 25, which indicated neutral attitudes.

Outcome of Management: It was reported that once within 15 days P5 had only one occurrence of bed wetting in his sleep. Beside this, it was reported that he was able to

awake when he felt bladder pressure then he used to the toilet with out any help of his parent. P5 felt his condition 90% better than before and his parent told he has overcome his entire problem 95%.

Homework assignment: At the end of the session, as usually P5 was given a self-monitoring chart for bed-wetting.

Therapist Observation: Although P5 was little bit upset for his failure to keep him dry but his parent was pleased about his progress.

- **10th session (A3)** – This session took place after one month. For measuring outcome of the intervention (A3), regarding as usual P5's academic and social performance, his behavior and parental attitudes toward his problem was collected. During this session, his parent filled out attitude towards enuresis questionnaire and the score was 26 that indicated neutral attitudes. At the end of the session, the entire problem and the therapeutic process from the beginning was discussed with P5 and his parent, and they were all surprised that P5 was able to overcome his problem so quickly, only within 10 sessions. This was the last session with P5 and he was terminated as a patient.

Therapist's Observation: Both P5 and his parent were so happy, as P5's enuresis problem improved. P5 seemed confident and he was proud for himself.

Case - 6

A total of 12 sessions were done with P6. There were 12 sessions done over a period of 138 days. The first three sessions were baseline assessment, one session was for formulation sharing and goal setting, six sessions were treatment session and the last one session was for follow up. Since P6's parents did not want to continue coming to the Hospital due to burden of other children, the last four sessions were done by the therapist at P6's home. The appearance, behavior, emotional reaction of P6 and her parent was observed in every session, which helped with the assessment and treatment.

- **1st session** – P6 and her mother were introduced with the researcher and a rapport was built up amongst them. They were told that this treatment will be used as a research purpose and P6's mother filled a consent form. To build up a rapport with P6 and to acquire information from her by using creative therapy, they were educated about psychotherapy process. After the therapist normalized P6's enuresis problem, the expectations of P6 and her mother were asked and they were advised what the realistic outcome should be. Information was gathered regarding P6's enuresis problem and other related problems by semi-structure interview. To gather the baseline information, P6 was given a self-monitoring chart and her mother was given a problem-recording chart, as a homework assignment.

Therapist's Observation: From the beginning of this session, P6 was easygoing and felt a little fear about the hospital setting. But she lost her attention within fifteen minutes. P6 and her parent were very eager to take home their assigned homework.

- **2nd session** – In this session, P6 came with her mother only. Feedback was taken from P6 and her parent regarding the enuresis problem. Previous week's homework was checked for baseline data, which showed that P6's nocturnal enuresis occurred 7 times. Other than that, a baseline data regarding P6's social performance, her behavior and parental attitudes toward her problem, were collected. P6's parent informed the therapist on how they practiced toilet training with her. The score of P6's parent Attitude towards Enuresis score was 31 which indicated normal attitudes. At the end of this session P6 was given a self-monitoring chart and her parents were given a problem-recording chart as a homework assignment.

Therapist's Observation: In this session, P6 was quite inattentive and arrogant for going to shopping. This session was conducted for twenty-five minutes only for the impulsiveness of P6. P6's eagerness towards doing homework was quite less during this session. However, on the days she did not do her homework, after showing her some appreciation, she became more eager to do it. P6's mother filled out ATE with a lot of enthusiasm.

- **3rd session** – At first the feedback was taken from P6 and her parent, then homework was checked, which showed that the nocturnal enuresis was five times. The aim of this session was to gather base line data; problem related information and to filled toilet training practice scale by her parent and the score of TTP was 38. P6 and her parent rated on a scale of 0 to 100 (100 being highest) the perception of P6 to enuresis and other related problems. Regarding the present problem of nocturnal enuresis, P6 rated it as 70% problem and her parent rated it as 80% problem. Her toilet avoiding behavior was rated by P6 as 70% and parent as 70% too. Besides these, her stubborn and Attention seeking behaviour and selfishness were rated by P6 as 50% and her parent as 70% problem and her fear of loneliness was rated by P6 as 90% problem and parent as 70% problem. Regarding her psychogeneses vomiting, P6 was rated 80% and parent was rated as 90% problem.

Therapist's Observation: P6 was easygoing and quite attentive than before and asked many questions on her own about the profession. In this session P6 was quite manageable and showed some interest to do some thing for her problems.

- **4th Session** – The aim of this session were to take feedback from P6 and her parent and homework was checked which showed that P6 did wet her bed every night in the last week. After that, formulation was shared, treatment goals and plans were set and finally homework was given. Previous week's homework was checked.

Therapist's Observation: When her case formulation was shared with P6 and parent, they accepted that formulation. Both of them were intensely occupied for solving those problems. P6 was quite afraid about facing intervention.

- **5th session** - Feedback was taken from P6 and her parent regarding the enuresis problem. Previous week's homework was checked which showed that nocturnal enuresis was five times. To achieve the first goals such as to reduce nocturnal enuresis, following management was applied.

Psychoeducation: Psycho-education was given regarding the function of bladder and kidneys and how it is related to enuresis and was demonstrated by using water and balloons. They were informed that bedwetting (also called nocturnal enuresis) is a common childhood problem. A child learns to control daytime urination as they become aware of their bladder filling. Once this occurs, the child then learns to consciously control and coordinate the contraction and relaxation of their bladder muscle. This generally occurs by four years of age. Control of night time's bladder function usually takes longer, and is not expected until a child is between five and seven years' old. Also they were educated on how enuresis can affect a child and her family and how it can contribute in causing other related problems for the patient. Further psycho-education was given to the parent regarding their duties towards the purpose of treatment.

Role -play: To motivate P6 to use the toilet, a role-play was done using two dolls showing the role of a brother and a child with enuresis problem. It was shown to her the baby doll held her urine until she had to wet her pants then the brother doll put-down at the child. By doing this P6 was able to relate her own problem and she said that when her brother put down at her for this and the same reason she feels. It was then shown to her by using the same dolls, that the girl doll started to use the toilet in timely schedule and overcame her enuresis problem and the brother doll showed a lot of surprise. This role play encouraged P6 to try to use the toilet at home regularly. After that her parent was told to use star chart for monitoring change and to reinforce alternative behaviour.

Schedule awakening: After motivating P6 for going to toilet by using role-play, schedule awakening was provided to develop the habit of going to toilet and urinating. The therapist showed P6 and her parents how they can use an alarm clock every two hours to schedule P6 to use the toilet. At first, waking P6 just before the parents go to bed and systematically waking them an half hour earlier on nights following several dry nights, until P6 awakens to urinate without support.

Cleanliness training: For increasing her responsible behaviour, P6 was involved to take responsibility for managing the consequences of wetting her beds and pants. At first P6 was motivated for cleaning her self when she wet her bed and pants through distancing technique by using the same dolls that wet bed and pants. It was directed

to the parents that if P6 wets her pants or bed then she should be responsible to clean up the entire mess on her own.

Reward system: For the better outcome, the parents were advised to use a star chart and a reward system when P6 would be able to follow the schedule properly. P6 could record and observe successes, and this reward system should serve P6 for achieving dry nights and help to clean out her bed. The therapist negotiated the schemes of this system with P6 and her parents.

Homework assignment: For further management procedure purpose parents were also told to observe the time difference P6 urinates after drinking water and they were also given fluid intake chart as homework. Beside this, P6 was given a self-monitoring chart and parents were given parents' recording chart as homework also.

Therapist's Observation: At the beginning of this session, P6 was relatively motivated to learn new knowledge about this problem. She looked like quite active to use that management. But when her parent expressed her concern about P6's involvement in the procedures of management, at that time, P6 insured that she would maintain this procedures with the support of alarm clock and her parents, and thus, her parent got little bit relief.

- **6th session** – Feedback was taken from P6 and her parent regarding the enuresis problem. To achieve and maintain the first goal following managements was applied.

Outcome of Previous Management: Frequency chart was checked which showed that nocturnal enuresis was three times. For this he was given four stars from the reward system. According to the parent, from the first three days, P6 was awarded and energized to use the toilet and cleaning her beds but after that she became exhausted and started to depend on mother for awakening herself. Her mother tried to follow the procedure.

Fluid restriction: The goal of this technique was to prevent overfilling the bladder during the night. To use fluid management, a parent previously prepared to keep a fluid intake diary, recording the amount of fluids consumed in a 24-hour period. Based on the total intake, a schedule can be created to spread fluids through the morning, afternoon, and evening. One recommendation was that 40 percent of total fluids should be offered in the morning, 40 percent in the afternoon, and only 20

percent in the evening. His parent instructed that evening fluids should be caffeine-free and no milk should be given.

Retention control training: Parent and P6 were then educated on retention control training. P6 was instructed to hold her urine for increasingly longer intervals during the day and the amount of urine voided at particular times during the day and night should be measured and recorded once weekly to track success. In this training, P6 should tell her parent when she feels the need to use the toilet and after three minutes from that time her parent would allow her to use the toilet. This process would help P6 to learn to hold her urine for three minutes, which would help him to overcome nocturnal enuresis. If she can successfully retain her urine for the given three minutes then slowly her time will be increased to 6 minutes and eventually to 45 minutes. Her parent was told to keep the reward system for this practice.

Relaxation: P6 was trained how to relax his mind and body through breathing and imagination, to feel secure and tension free of any bad memory.

Therapist's Observation: At the beginning of this session, P6 was cheerful to inform her successes and showing her homework. In this session, P6 was more inspired to learn new knowledge about this problem than other time. Her parent seemed little worried about the impact of fluid restriction on P6, but when it was insured that fluid restriction would not do any harm to P6, then her parent got relief.

- **7th session** – The plan of this session was to take feedback from P6 and her parent, homework was checked and further intervention related to this problem was provided.

Outcome of Previous Management: Previous week's homework was checked which showed that nocturnal bed-wetting was three times. P3 was surprised that she was capable to hold her urine for 30 minutes. Her parent informed that P6 was able to hold her urine in daytime and did not wet any pants in daytime.

Retention control training and fluid restriction: Parent and P6 were again educated on retention control training and fluid restriction for further treatment purpose. Parents were then counselled to continue the retention control practice and fluid restriction for next week.

Systematic desensitisation: To overcome her fear of loneliness, systematic desensitisation was used. At first, the hierarchy of loneliness fear was listed by interviewing P6 and then P6 was relaxed through breathing relaxation and through imagining a series of progressively more fearsome situation alone. This was done over and over. At the same time her parent suggested to give a reward for staying alone.

Problem solving skills and Role-play: For achieving the problem related goal by reducing stubborn behavior, pros and cons were used. In this session, P6 was asked what types of benefit she got from stubborn behaviour. P6 was reported that she fulfils her demand and wishes by it and after that she asked what the disadvantages of stubborn behaviour were. In that case, she informed that some time mother yelled and criticised others, brothers were also teased and criticised her cousins for that and lost her friendship with her playmates. Then she realised and asked what could she do instead of stubborn behaviour? In that time, therapist conducted a role-play by using one doll and three pencils as roles of a situation. The doll acted as a stubborn child and red pencils played mother role, green as eldest brother and blue as elder brother roles. When doll was demanding Sharma for meal and mother pencil refused it, doll started crying and demanding and brothers teased her for this behaviour. At that moment doll declared that without Sharma she could not take anything in meal, then mother was yelled her and she felt sad and thought that nobody loved her. P6 was asked to advise the doll's reversed role and then she advised the doll if doll could request her mother for Sharma, if mother refused it, further she could ask whether it would be possible in this week. Then mother agreed for it. When the doll played reverse role in this situation, how she felt much better than that. However, whether or not she would be able to do this seemed questionable. Then her bed-wetting problem was discussed that after trying she has been able to slowly become successful.

Reward system and When and then rules: This was used to motivate P6 towards modifying her behaviour. For example, when she would be able to behave un-stubbornly, then P6 would be rewarded with a star. P6 became a little bit more encouraged when she behaved appropriately then everyone of her family would be more loving with her and playmates would look at her differently.

Homework assignment: At the end of the session P6 was given a self-monitoring chart for bed-wetting and different star chart for un-stubborn behavior.

Therapist's Observation: Parent and P6 seemed quite mixed-up about her progress. But it was informed that it was difficult to change and improve the conditions with in few sessions. After that her parent realised the condition and she hoped P6 improve her condition at once.

- **9th session** – This session was done after 13 days for Eid holiday. At first the feedback was taken from P6 and her parent, then homework was checked, after that the aim of this session was to apply advanced intervention to achieve the main goal and prevent relapse.

Outcome of Previous Management: Previous week homework was checked which showed she did wet her bed only one time. P6 was astonished that by retention control training she was able to keep dry for the last twelve days. Her parent informed that she also modified her behaviour and she earned seven stars in the reward system.

Over-learning training: The therapist instructed P6 and her parent about over-learning training. In favour of this technique on the first day P6 is advised to drink 2 ounces (1 ounce = 30 millilitres) of water, 15 minutes before going to sleep. If she is able not to wet her bed for the first two days, then the amount to drink will be increased to 4 oz on the third day, 6oz on the fifth day and eventually increased to 7 and half oz. According to her age and bladder capacity, 7 and half oz of water is the highest amount that could be given. However, if for any reason P6 wets her bed then the amount of drinking water given to her before bed will be decreased by 2 ounces accordingly. P6's parent was also counselled to apply the reward system again for this technique.

Staircase to Success: Since P6 is an intelligent child and likes to draw, creative therapy 'Staircase to Success' was used to help to reduce her selfishness behavior. At the bottom of the staircase, her current behavior of unwillingness to share anything with others was portrayed. At the top of the staircase showed willingness to share things with others.

Homework assignment: For further management procedure purpose, P6 and her parent was given a problem-monitoring chart as before.

Therapist's Observation: At the beginning, P6 expressed her joy for her achievements. In this session, she seemed very attentive and calm than other session. But at the end of the session, parent seemed quite tense about this therapy process, because she was not sure whether or not P6 would be successful at it because when she took too much liquid before bed then she wet her bed mostly. However, when after it was rationalized to her that this technique may seem difficult but it would be achievable for P6 and it would help her from future relapse with her enuresis problem, then she felt less nervous.

- **10th session** – This session was done after 8 days. The target of this session was taking feedback from P6 and her parent, homework would be checked and additional management was advised.

Outcome of Previous Management: P6 did wet her bed for the last two days when she took 6 ounce of water and was able to keep her bed dry for 5 days continuously. Her parents said that P6 enthusiastically applied the therapist instruction than before. Beside this, the outcome of staircase to success showed that she could not reach the top of the stairs but was able to reach the second from top level in this week.

Over learning training: Parent and P6 were again educated on over learning. In this session, P6 also showed evidence of her previous success for increasing her confidence and ensured that she was capable to hold 7 and half-ounce water before bedtime.

Awareness for preventing sexual abuse: Due to P6's previous physical abuse history, a preventive idea was presented to her on how she should behave in front of others and what body parts should remain private. This was demonstrated to her by using a doll.

Problem solving techniques for vomiting tendency: In this session, psycho-education was given to parent and P6 regarding diet, what were the benefits and harm of vomiting behaviour. P6 was trained how to express her opinion or feelings without any vomiting activities through role-play.

Praise-ignore formula: To reduce her unacceptable behaviour, it was used. In this technique parent of P6 was trained how to praise her acceptable behaviour and how to ignore her unacceptable behaviour like - stubbornness, selfishness and vomiting. It

was explained by A-B-C, such as A-when P6 wanted to watch a TV cartoons rather than practice hand writing and her mother said 'no', B as P6 lay on the floor and screamed and here C was mother ignored her whenever he calm. If she calm and sit on table for practicing her handwriting, then mother praise her verbally.

Therapist's Observation: At the starting of the session, P6 was very cheerful for being able to hold her urine with drinking extra fluids. Her parent also seemed happy for this session notices all of the problem behaviours of P6 and she was grateful that P6 progressed gradually.

- **11th session** – In this session, common procedure was followed as before. Therapist along with P6 and her parents all decided that the next session would be after 15 days as follow up session. For measuring outcome of the intervention (A1), regarding P6's social and behavioral performance and parental attitudes toward her problem was collected. During this session, her parent filled out Attitude towards Enuresis questionnaire and the score was 25 that indicated positive attitudes.

Outcome of Management: It was reported that once within seven days P6 had no occurrence of incontinence in her sleep and awoke right away to use the toilet on her own. It was reported that she was able to awake when she felt bladder pressure then she used to the toilet with out any help of her parent. Both P6 and her parent rated the condition as 100% improved than the previous condition.

P6's mother also reported that P6 now behaved little bit stubbornly and she did not vomit last week. P6 reported that the outcome of staircase to success showed that she was able to reach the top of the stairs, was enjoying lot and felt confident.

Therapist's Observation: P6 was very cheerful and grateful in this session because she was able to acquire the top prize for the reward system and her parent gave the impression about P6's improvement that they were very happy. P6 looked quite proud for her achievement.

- **12th session** – This was first follow-up session which took place after 19 days for her sickness. For measuring outcome of the intervention (A2), regarding P6's social performance, behavior and parental attitudes toward her problem was collected. During this session, her parent filled out Attitude towards Enuresis questionnaire and the score was 20 which indicated more positive.

Outcome of Management: P6 was trying to maintain her progress. She did wet her bed two times because of drinking too much Saline water for loose motion but she try to help her mom for clean up their bed. Parent of P6 reported that she tried to modify her unacceptable behavior, but some time she returned to her old pattern. P6 argued that most of the time she shared everything with others except chocolates and ice cream. She also reported that last Friday night she allowed her granny in their bed.

Therapist's Observation: In this session, P6 seemed little bit disappointed due to wetting her bed for two times. During that time, P6 and her parent was informed that some time it would happen, so it would be better to take prevention before bedwetting.

- **13th session** – This session took place after 35 days. For measuring outcome of the intervention (A3), regarding P6's social and behavior performance and parental attitudes toward her problem was collected. During this session, her parents filled out attitude towards enuresis questionnaire and the score was 19 that indicated more positive attitude. At the end of the session the entire problem and therapy from the beginning was discussed with P6 and her parent and they were all quite surprised that P6 was able to overcome her problem very quickly, within 18 weeks. This was the last session with P6 and she was terminated as a patient.

Therapist's Observation: For the maintaining the progress of P6, she and her parent were satisfied.