



## Psychosocial Intervention in Person with Nocturnal Enuresis: A Cross-Sectional Case Study

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### Abstract

**Background:** Enuresis is an episode of involuntary urination in bed at the time of deep sleep. When this phenomenon occurs at night, it is known as Nocturnal Enuresis (NE), also known as bedwetting. It often leads to emotional and behavioral problems in the client and family, hence psychosocial intervention becomes effective.

**Aim and Objective:** To assess the psychosocial problems related to NE and provide intervention at individual and family levels.

**Methodology:** A single-subject case study design was used. The client and family members have explained the purpose of the study and proper written consent was taken from them. Pre and post-assessment were done, using assessment scales.

**Result:** Significant level of improvement was seen in post-assessment.

**Conclusion:** Psychosocial assessment and intervention is the need of the hour, in cases of NE.

**Keywords:** Nocturnal enuresis; Psychosocial intervention; Enuresis alarm; Care burden

### Introduction

Nocturnal Enuresis (NE) is the inability to hold urine during the night. It is a physiological neuro-motor condition [1]. The prevalence of nocturnal enuresis in male adults was found to be 2% to 3%, whereas, in female adults, it was found to be 23% to 39% [2]. A study conducted by Guragac et al. [3] suggested that the condition of nocturnal enuresis may lead to emotional and behavioral problems such as stress, anxiety, depression, social shyness, lower self-esteem. The common risk factor associated with nocturnal enuresis may include genetic predisposition, obesity, and hypertension [4]. Therefore, the present study was designed to see the effectiveness of psychosocial intervention in person with NE and his caregiver.

### Methodology

The present study was a single-subject case study, where a quasi-experimental research design was used and pre- & post-tests were performed to identify the changes in scores. The case was identified at the outpatient department of LGBRIMH, Tezpur. Proper information about the study and confidentiality terms was provided to the person with NE and the caregiver after that written consent was signed.

Assessment scales used in the study

- 1. Family Assessment Device (FAD):** It is a 60-item self-reported questionnaire designed to measure the family functioning of an individual. Cronbach alpha was found to range from 0.79 to 0.81 [5].
- 2. Family Attitude Scale (FAS):** It is a 30-item self-reported questionnaire designed to measure the attitude of the family. Cronbach alpha was found to be 0.67 [6].
- 3. Depression Anxiety Stress Scale (DASS 21):** It is a 42 items self-reported questionnaire, designed to measure emotional state. Cronbach alpha was found to be 0.69 [7].
- 4. Work Behavior Inventory (WBI):** It is a 7-item self-reported tool used to quantify an individual's behavior in terms of work styles and interaction at work. The Cronbach alpha was reported to be 0.85 [8].

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### Case Introduction

Mr. X, 21 years, male, unmarried, Hindu, B.Tech (II) year student, hailing from the suburban area of Tezpur. The client came to the LGBRIMH, Tezpur outpatient department with the chief complaint of bedwetting (since childhood), along with social shyness, poor appetite, and a pessimistic view of the future for 2 years. The mode of onset was insidious, continuous course of illness and deteriorating progress of the illness. The client’s mother as a primary caregiver mentioned that the client always preferred to stay at home in dark rooms, and had deteriorated a lot in studies and other physical activities. He was diagnosed with F41.2 (mixed anxiety and depressive disorder) with R32 (unspecified urinary incontinence), according to the International Classification of Diseases (version 10) (Figure 1).

### Family history

According to the informant (mother), till 16 years of age, she had a history suggestive of nocturnal enuresis. The client’s younger brother has a schizophrenia-like illness, with ongoing treatment from LGBRIMH, Tezpur. The client’s two paternal aunts have some non-affective mental illness. The client’s maternal grandmother has a history suggestive of cardiac ailment, diabetes mellitus, and hypertension.

### Family dynamics

Based on the assessment scales and cross-sectional psychosocial interview, it was found that both internal and external family boundaries were semi-open. Father was the nominal head of the family, whereas, the mother was the functional head of the family. Decision-making was democratic style, but the father used to take the major decision of the family and tries to brief other members. A dysfunctional pattern of non-verbal communication was presented from children toward their father. The family failed to distribute their roles and responsibilities appropriately among all members. Coping and problem-solving were inadequate in the family.

### Psychiatric social work intervention

Psychosocial assessment and intervention were provided to the

client and the family (the mother was the primary caregiver) in the psychosocial unit of LGBRIMH, Tezpur. Altogether 14 sessions (seven individual sessions, three family primary caregiver sessions, and three follow-ups) were provided.

### At individual level

**1. Establishing rapport and therapeutic alliance** (session 1): In the introductory session, a trustworthy objective relationship was developed between the client and the therapist. The client has explained the nature of the treatment. He has explained the nature of the treatment, the process of the intervention, and the expected outcome. Confidentiality assurance was given to him.

**2. Dry bed training** (session 2): In this training, the client facilitated mandatory waking up at a sort interval at night for urination. Changing clothes, if urine spots are present for better hygiene. This intermittent wake-up at night helps the bladder to remain lightly weighted [9].

**3. Behavior modification** (session 3, 4): Behavior modification is seen as the planned systematic application of the experimentally established principle of learning to the modification of maladaptive behavior especially to decrease undesired behavior and increase desired behavior. Here, techniques like reinforcement, punishment, shaping, Channing, fading, and prompting were used.

**4. Alarm therapy/Enuresis alarm** (session 5, 6): It is one of the advanced treatment techniques, which is found to be an effective treatment of nocturnal enuresis. In this technique, an alarm with a sensor is kept nearby the client’s bed. At midnight, whenever, a small amount of urine is passed in the bed, the alarm is activated, and the client can urinate properly in the bathroom. On repeated conditioning of this technique, the client develops a habit of waking up at night for urination [9].

**5. Cognitive behavior therapy** (session 7-8): This therapy was planned to target automatic negative thoughts that can contribute to and worsen emotional difficulties, depression, and anxiety. The objective was to identify the negative thoughts, generate a list of

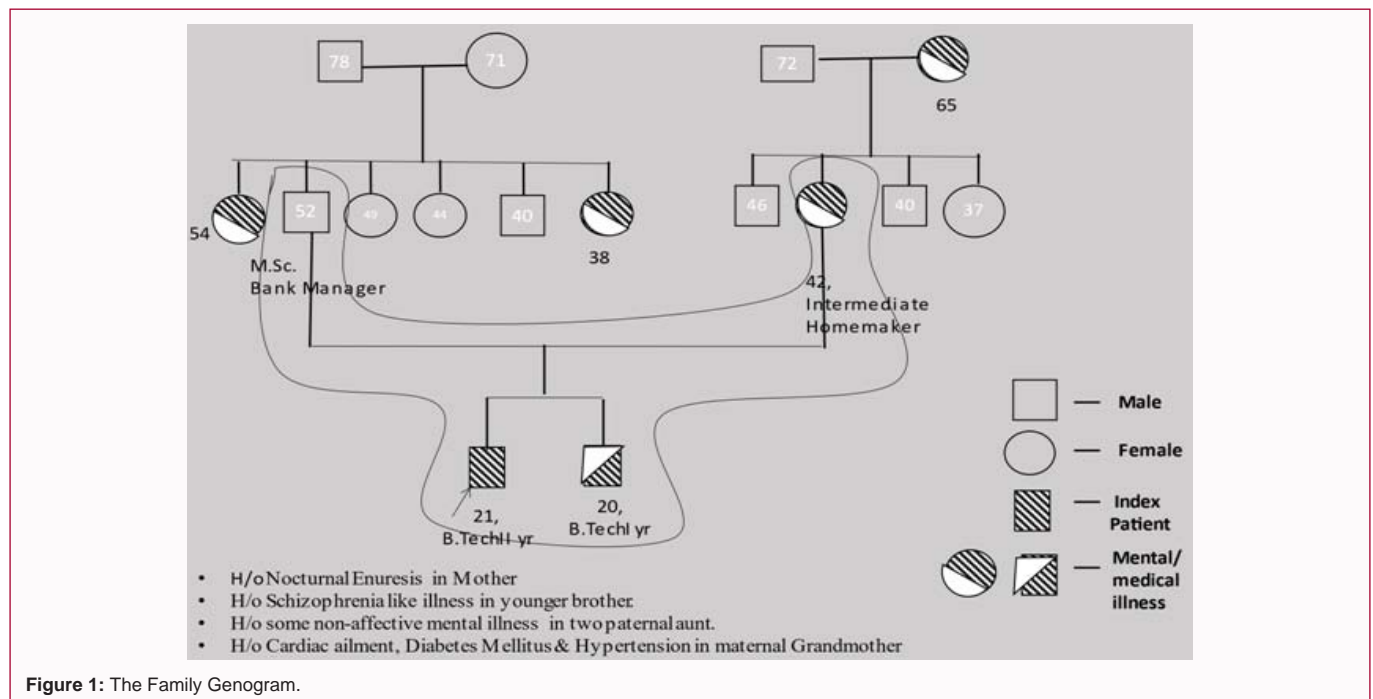


Figure 1: The Family Genogram.

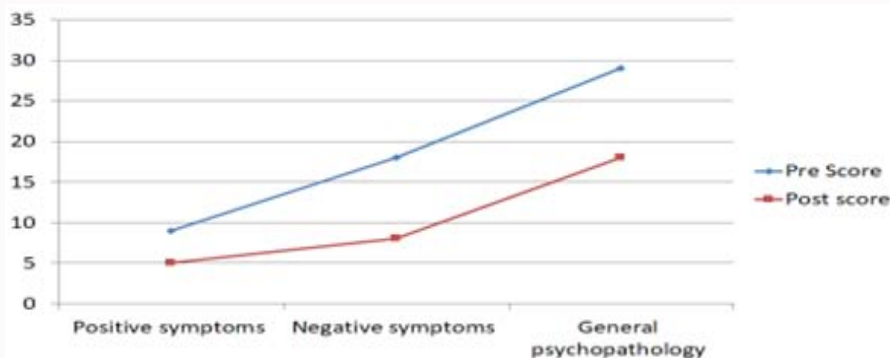


Figure 2: Pre and post-test score of work behavior inventory.

Table 1: Pre and post-test score of Family Assessment Device (FAD).

Domains	Pre-test Scores		Post-test Scores	
	Obtained score/cut-offs	Impression	Obtained score/cut-offs	Impression
Problem Solving	2.4/2.2	Dysfunctional	1.9/2.2	Normal
Communication	2.3/2.2	Dysfunctional	2.1/2.2	Normal
Roles	2.4/2.3	Dysfunctional	1.9/2.3	Normal
Affective Responsiveness	2.1/2.2	Normal	2.1/2.2	No change
Affective Involvement	2.2/2.1	Dysfunctional	2.2/2.1	No change
Behavioral Control	2.4/1.9	Dysfunctional	1.7/1.9	Normal
General Functioning	2.3/2.0	Dysfunctional	1.9/2.0	Normal

Table 2: Pre and post-test score of Family Attitude Scale (FAS).

Domains	Maximum Score	Pre-test Scores		Post-test Scores	
		Score Obtained	Impression	Score Obtained	Impression
Critical Comment	10	2	Mild	0	Nil
Hostility	12	3	Mild	0	Nil
Warmth	12	6	Moderate	No change	
Dissatisfaction	12	4	Mild	No change	
Emotional over-involvement	14	10	Severe	6	Mild

possible solutions, and evaluate the strengths and weaknesses of each possible solution, to choose a solution and implementation. The ultimate goal of this therapy was to shift the client from an emotional focus coping to problem focus coping [10].

**At family level**

1. **Family psychoeducation** (session-1): The objective of this therapy was to psychoeducation the mother (primary family caregiver) and father about the nature of illness like onset, course, causal factors, and treatment rationale of illness.

2. **Supportive counseling** (session-2): This session was planned to promote the client’s family’s best possible psychological and social adaptation by restoring and reinforcing their abilities to cope with the challenges of life.

3. **Relaxation therapy** (session-3): Jacobson’s progressive muscle relaxation was provided to the family’s primary caregiver (mother), to feel relaxed. Techniques applied were – deep breathing exercises and meditation.

4. **Follow-ups session:** After the discharge of the client, two follow-ups session was conducted, at an interval of one and three months. The objective of these follow-ups was to monitor the

progress of the client.

**Results**

According to Table 1, in the post-test scores, a significant level of positive changes occurred in the domain of problem-solving, communication, and roles (1.9/2.3).

According to Table 2, significant positive changes were seen in post-test scores in critical comment, hostility, and emotional over-involvement domains. This table showed significant positive changes in all the domains of the DASS 21 (Table 3 and Figure 2).

**Discussion**

In the present study, there was a positive change seen in the client’s post-finding scores of stress, depression, and anxiety after

Table 3: Pre and post-test score of Depression, Anxiety and Stress Scale-21 (DASS 21).

Domains	Pre-test	Post-test
Stress	Moderate	Mild
Anxiety	Severe	Mild
Depression	Moderate	Mild

cognitive behavioral therapy. A study conducted by Akhouri et al. [11] also showed a shift from moderate to mild depression after the successful application of cognitive behavior therapy. Alarm therapy was found to be a very effective non-pharmacological treatment in adults. During the follow-up sessions, the client reported 3 to 4 days of dry nights per week. Studies conducted in past have also mentioned alarm therapy as the first-line non-pharmacological treatment [9-11]. The post-test score of the work behavior inventory showed that there were significant changes in social skills, cooperation, and work habits, quality of work, personal presentation, and global assessment of work behavior. Family psychoeducation is important in NE cases, as it develops an insight in the family members about the illness so that they are no more clueless about the illness its etiology.

## Conclusion

NE in adults has a direct impact on the emotional and behavioral aspects of client personality. It may lead to poor self-esteem, social isolation, depression, anxiety, stress, poor coping. It also leads to care burden on the family primary caregivers of the client. So, a proper psychosocial assessment and management both at the individual and family level is the need of the hour.

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