

Nursing interventions to manage anxiety levels of female inpatients admitted first time in a leprosy hospital

A George, T Khora, P Das, PSS Rao

Received : 06.08.2012 Revised : 02.02.2013 Accepted : 04.02.2013

Leprosy causes not just physical disabilities but mental and psycho social problems which are further more enhanced in women due to their submissive and secondary role in an Indian culture. This is reflected in their reluctance and delay in seeking hospitalization and generates great anxiety while admitted as inpatients. Appropriate nursing care can relieve much anxiety and help in faster healing. This paper presents the findings from such research carried out at a leprosy referral hospital in north India. Adult female leprosy patients newly admitted for the first time in a leprosy referral hospital were interviewed in depth using Hamilton Anxiety Rating Scale and observed before and after implementing a customized nursing care plan. On admission, out of 40 women admitted more than 80% showed moderate or severe anxiety. After well planned nursing interventions only 2 continued to have severe anxiety, and a majority in all age groups showed significant reductions in anxiety levels, and responded well to leprosy care at the hospital. Well planned nursing care reduces or minimizes anxiety levels of female leprosy patients admitted first time in the hospital, and should become a standard practice in all hospital admissions.

Key words : Hospitalization, Anxiety, Leprosy

Introduction

Hospital admissions, especially as an inpatient, produce much stress and high levels of anxieties for most patients but especially so among women in India (John et al, 2012; Pritchard 2009; Sarkar et al 2012). These anxieties are exacerbated when the women are suffering from a stigmatized disease such as leprosy, with chronic and often painful complications (Le Grand 1997; Kaur and Ramesh 1994; Varkevisser et al 2009). Nurses

have played a key role in managing such situations successfully, such as supplementing medical treatment with healing touch (Hardwick et al 2012), or providing relaxing or comforting environment (Walters 1994; Rueda et al 2011), or in reducing pain or stress through appropriate nursing actions (Cooper et al 2012; Amiel-lebique et al 2002). Such studies are useful and often essential in Indian setting but rarely reported.

Patients admitted for leprosy complications often

¹ A George, B.Sc. (Nursing) Staff Nurse, TLM Community Hospital, Naini, Allahabad

² T Khora, B.Sc. (Nursing) Staff Nurse, TLM Community Hospital, Naini, Allahabad

³ P Das, MS, Surgeon and Superintendent, TLM Community Hospital, Naini, Allahabad

⁴ PSS Rao, Research Consultant, TLM Trust India, New Delhi

Corresponding to: PSS Rao **E-mail:**

suffer from painful physical and mental symptoms. (Naik et al 1991; John et al 2010) The altered mental status hampers the holistic healing of the patients and thus decelerates the physical healing (Patel et al 2010; Koivula et al 2002 Bolukbas et al 2010). Women in leprosy endemic countries also suffer from marked economic and social dependency and inferiority, despite assuming enormous responsibility of the family (Ulrich et al 1993). Thus being away from the family for hospitalization generates much anxiety and panic which must be suitably addressed by every health care professional, especially nurses, who are largely responsible for hospital care. Research on the assessment and management of anxiety among leprosy by nursing personnel have not been reported so far. The present study investigates the role of nurses in managing various anxieties of female patients admitted for the first time in a leprosy referral hospital. The Hamilton Anxiety Rating Scale (HAM-A) and a series of interviews of the patient was used to assess subjectively and objectively the level of anxiety, with a view to identify the stressors and to formulate nursing interventions to reduce various anxieties and provide holistic care. In this paper the results of such interventions and their evaluations are described and further research ideas discussed.

Materials and Methods

This research was carried out during 2011-12 at the Leprosy Mission Community Hospital at Naini in Allahabad district, Uttar Pradesh, established in 1910, and currently registers the largest number of leprosy patients, both new and old, men and women, for MDT and for managing several leprosy complications such as reactions, ulcers and deformities. It has 150 beds, 93 staff, and registers 3000 new cases and 20,000 repeat visits of leprosy cases per year. The medical record department is well organized to register all

patients, new old and ensure complete electronic data entries.

All female leprosy patients in the age group of 20 to 60 yrs admitted to this hospital for the first time were included. Those physically and mentally challenged and revisits were excluded.

Based on expected anxiety levels, disease status and distance from the hospital, and keeping the type 1 error as 5% and power of 80% with a precision of 20%, the minimum sample size for this study was determined as 40 female leprosy patients.

The nursing care plan consists of assessment, nursing diagnoses, interventions, implementations, and evaluation.

Nursing assessment, using standardized form, required about 30 to 40 minutes for each patient to bring out their hidden widespread area of anxieties. The data were collected analyzing the subjective verbalization and the observation of the sample's expressions and gestures. The assessment tool was designed to provide a brief description of the patient's demographic data and her possible stressors due to the physical deformity and related social insecurity. The discussions were both done in a group and individually within the first week of admission.

The Hamilton Anxiety Rating Scale (Ham-A) was used for more specific assessment of the status (Hamilton 1959). Following the Hamilton assessment scoring, the anxious state of mind of the clients were assessed. The assessment scale rates the patients by understanding the certain feelings that people could have. Fourteen questions were formulated which categorized the patients into mild, moderate and severe anxiety.

The nursing care plan as per the North American Nursing Diagnosis Association (NANDA) taxonomy (Turner 1991) diagnosis was utilized to assess and diagnose their anxious state; intervene

and implement the nursing care and evaluate the outcome.

Nursing Diagnosis was arrived at through observation and interactions with the patients who expressed anxiety related to situational crises (new admission) feelings of confinement as evidence by insomnia, restlessness, depressed mood, irritability, crying spells, increase in pulse, and respirations, expression of helplessness, and difficulty concentrating, asking too many doubts palpitations etc.

Nursing assessment was also based on the needs of the female patients such as their anxiety regarding their physical disability e.g. claw hands or painful erythematous nodusum leprosum (ENLs) or ulcers. Some patients expressed their anxiety regarding their family and properties which they left and came to hospital, while some were anxious about the disturbances in their body image. Some were hopeless and believed that they would never recover from what their fate brought them. Some women expressed their anxiety regarding how safe and secure the hospital environment was. A few patients had excessive doubts regarding the hospital rules and regulations, their expected contributions during their stay and the various procedures done on them. All these assessments were quantified according to Hamilton assessment

Nursing interventions were planned and formulated according to the assessment of each individual and according to the care each person demanded. Reliable data required building a good rapport and spending quality time i.e. 20-30 minutes with them, providing relaxation therapy to those who feel hopeless of their prognosis. Patients who had anxiety regarding their family or their body image disturbances were kept occupied with some works like bandage making or assisting disabled patients etc. Orientation

regarding the hospital campus, chapel, park, nurses station etc were given to patients who were scared of the new surrounding and felt unsafe and insecure. Patients newly admitted were introduced to the old patients who were admitted before and recovered. Information regarding the disease condition and the treatment and the outcome were provided. All patients were given ample of time to ventilate in case of any outbursts of emotions and relatives were encouraged for those needed. The interventions were implemented after the adequate consultations with the patients.

Two assessments were made using the Hamilton scale, one within the first 24 hours of the admission of the patients and the second assessment after the implementation of the planned nursing interventions

Findings

A total of 40 women inpatients admitted for the first time for leprosy complications were included in this study. Of these, were 11 (27.5%) were below 30 years of age, 13 (32.5%) between 30 to 40 years, and 16 (40.0%) were 40 years or older. All were married. The baseline anxiety level as assessed by the Hamilton assessment scale before the interventions were implemented is given in Table 1.

The women suffered from high anxiety as measured by the Scale; only 7 (less than 20%), had mild anxiety, 20 (72%) had moderate anxiety and 4 (10%) had severe anxiety.

The Mean (SE) scores (post-assessment) after the nursing interventions are shown in Table 2.

The anxiety levels had reduced in all age-groups, more so in the oldest women.

The individual differences for each woman were computed and the summary of differences presented in Table 3.

Table 1 : Baseline Anxiety Levels before Nursing Intervention

Anxiety Score	Age (Years)			Total (40)
	18-29 (11)	30-39 (13)	40 & Over (16)	
Mean	20.64	22.15	19.19	20.55
SE	1.05	0.87	0.71	0.52
Median	21	23	18	20

Figures in brackets indicate numbers studied

Table 2 : Anxiety Levels after Nursing Interventions

Anxiety Score	Age (Years)			Total (40)
	18-29 (11)	30-39 (13)	≥ 40 (16)	
Mean	18.18	19.23	16.31	17.78
SE	0.998	0.871	0.711	0.515
Median	17	18	15	17

Figures in brackets indicate numbers studied

Table 3 : Pre-Post Nursing Intervention differences in Anxiety Levels

Anxiety Score	Age (Years)			Total
	18-29 (11)	30-39 (13)	≥ 40 (16)	
Mean	2.45	2.92	2.88	2.78
SE	0.835	0.984	0.446	0.421
P-value	0.0150	0.0117	0.0001	0.0001

Figures in brackets indicate numbers studied

Table 4 : Change in Post Anxiety Level in relation to Pre-Nursing Anxiety Level

Pre-Nursing P-Value	Post-Nursing Anxiety Level			Total
	Mild	Moderate	Severe	
Mild	6	1	0	7
Moderate	18	11	0	29
Severe	2	0	2	4

Significant reductions in anxiety levels are seen in all age-groups.

The assessment done post – interventions indicated that only 26(65.0%) had mild anxiety

12(30.0%) still had moderate anxiety, and only 2(5.0%) continued to have severe anxiety.

A cross – tabulation was done between the Pre- and Post Anxiety Levels and presented in Table 4.

Significant reductions in anxiety levels are seen in all age-groups.

The assessment done post – interventions indicated that only 26 (65.0%) had mild anxiety 12 (30.0%) still had moderate anxiety, and only 2(5.0%) continued to have severe anxiety.

A cross –tabulation was done between the Pre- and Post Anxiety Levels and presented in Table 4.

The differences are statistically highly significant ($p < 0.01$), and emphasize the importance of well planned individualistic nursing interventions to reduce or minimize the anxiety level of female leprosy patients admitted first time in the hospital.

Discussion

The findings from this research highlight the major role nurses can play in alleviating anxiety as well as significantly complementing the medical therapy in leprosy patients, particularly women. It is well known that Indian women are often reluctant to be hospitalized due to their domestic responsibilities as well as fear of the unknown (Ulrich et al 1993; LeGrand 1997). Leprosy is a “double” jeopardy for women due to stigma and the second class status accorded to women in Indian society. (Morrison 2000; Rao et al 1999). Nursing personnel often play a silent if not a secondary role in many Indian hospitals, despite their professional skills and stable presence in the inpatient wards, and it is high time this image is changed. The curriculum and content of the nursing courses have dramatically changed, and nurses can easily take up more responsible and active roles in hospitals, especially in centres caring for chronic rehabilitating diseases (Pritchard 2009, Walters 1994).

Most hospitals in developing countries suffer from resource constraints, and much of nursing interventions are cost-effective and can also be labour-saving if family-based and other

alternative methods of care giving can be introduced. (Pinar et al 2010, Peters et al 1999).

The present study has shown that once the anxiety of the patient is relieved, she could become a valuable partner in therapeutic program. In addition, it provides an unique opportunity to offer health education and skills in managing disease complications.

Several innovative nursing initiatives have been reported in other hospitalized patients. Healing touch (HT), a nurse-initiated modality, has potential to decrease postoperative pain in patients undergoing bilateral total knee arthroplasty and restore balance to a patient's energy field to facilitate self-healing, as reported by Hardwick et al (2012) in a randomized controlled trial of 41 patients. In another randomized controlled trial, tailored nursing interventions were used to improve cardiac rehabilitation enrolment (Cossette et al 2012), 242 ACS patients admitted to a specialized tertiary cardiac center were randomized to either the intervention or usual care ($n=121$ in both groups). The intervention included one nurse-patient meeting before discharge with 2 additional contacts over the 10 days after discharge (mean duration=40 minutes per contact). The primary outcome was enrollment in a free rehabilitation program offered to all participants 6 weeks after discharge. Secondary outcomes included illness perceptions; family support; anxiety level; medication adherence; and cardiac risk factors including lack of exercise, smoking, body mass index, and diet. The results showed that progressive, individualized interventions by nurses resulted in greater rehabilitation enrollment, thereby potentially improving long-term outcome.

Cooper et al (2011) in a study on Managing Deteriorating Patients: Registered Nurses' Performance in a Simulated Setting showed that

Nurses' ability to manage deterioration and 'failure to rescue' are of significant concern with questions over knowledge and clinical skills.

In a study by Rueda et al (2011), non-invasive nursing interventions were used for improving well-being and quality of life in patients with lung cancer. Fifteen trials were included, six of which were added in this update. Three trials of a nursing intervention to manage breathlessness showed benefit in terms of symptom experience, performance status and emotional functioning. Four trials assessed structured nursing programmes and found positive effects on delay in clinical deterioration, dependency and symptom distress, and improvements in emotional functioning and satisfaction with care. One trial of nutritional interventions found positive effects for increasing energy intake, but no improvement in quality of life. Two small trials of reflexology showed some positive but short-lasting effects on anxiety and pain intensity. The main limitations of the studies included were the variability of the interventions assessed and the approaches to measuring the considered outcomes, and the lack of data reported in the trials regarding allocation of patients to treatment groups and blinding.

In general, it seems that well planned nursing interventions can have far reaching benefits to the patients and accelerate therapeutic outcomes. Relieving anxieties and ensuring the patients' coping skills through nursing interventions are critical in chronic disease hospitalizations, especially for women patients.

References

1. Amiel-lebique F and La Calmonte E (2002). Menard F. First time hospitalization for depressive and/or anxiety disorder and severe life events. *Soc Psychiatry Psychiatr Epidemiol.* **37**: 586-591.
2. Bolukbas N, Erbil N and Kahraman AN (2010). Determination of anxiety level of women who present for mammography. *Asian Pac J Cancer Prev.* **1**: 495-502.
3. Cooper S, Cant R et al (2011). Managing deteriorating patients: registered nurses' performance in a simulated setting. *Open Nurs J.* **5**: 120-125.
4. Cossette S, Frasure-Smith N, Dupuis J et al (2012). Randomized Controlled Trial of tailored nursing interventions to improve cardiac rehabilitation enrollment. *Nursing Res.* **61**: 111-120.
5. Hamilton M (1959). The assessment of anxiety states by rating. *Br J Med Psychol.* **32**: 50-55.
6. Hardwick ME, Pulido PA and Adelson WS (2012). Nursing intervention using healing touch in bilateral total knee arthroplasty. *Orthop Nurs.* **31**: 5-11.
7. John AS, Rao PSS and Sonali D (2012). Assessment of Needs and Quality Care Issues of Women with Leprosy. *Lepr Rev.* **81**: 34-40.
8. Kaur H and Ramesh V (1994). Social problems of Leprosy Women patients – a study conducted at 2 urban leprosy centres in delhi. *Lepr Rev.* **65**: 361-375.
9. Koivulla M, Tarkka MT, Tarkka M et al (2002). Fear and anxiety in patients in different time points in the coronary artery bypass process. *Int J Nursing Studies.* **39**: 811-822.
10. Le grand A (1997). Woman in Leprosy - a Review. *Lepr Rev.* **68**: 203-211.
11. Morrison A (2000). A Woman with Leprosy Is in Double Jeopardy. *Lep Rev.* **71**: 128-143.
12. Naik SS, Hambarde PS and Desai AN (1991): Problems and needs of women patients in Bombay and Goa- A preliminary report. *Ind. J. Leprosy.* **63**: 213-217.
13. Patel V, Weiss HA, Chowdhary N et al (2010). Effectiveness of an Intervention led by Lay Health Counsellors for Depressive and Anxiety Disorders In Primary Care in Goa, India (MANAS) A Cluster Randomised Controlled Trial. *Lancet.* **376**: 2086-2095.
14. Peters T, Somerset M, Baxter K et al (1999). Anxiety among women with mild dyskaryosis : costs of an educational intervention. *British J General Practice.* **49**: 348-352.

15. Pinar G, Okdem S, Buyukgonenc L et al (2010). The Relationship between Social Support and the Level of Anxiety, Depression, and Quality of Life of Turkish Women with Gynaecologic Cancer. *Cancer Nursing*. **35**: 229-235.
16. Pritchard MJ (2009). Managing Anxiety in the Elective Surgical Patient. *British J Nursing*. **18**: 416-424.
17. Rao PSSS, Augustine V and Joseph GA (1999). Being A Female Leprosy Patients In South India. *Ind J Lepr*. **71**: 279-284.
18. Rueda JR, Solà I, Pascual A et al (2010). Non-invasive interventions for improving well-being and quality of life in patients with lung cancer. *Cochrane Database Syst Rev*. **7**: CD004282.
19. Sarkar S, Chadda RK, Kumar N et al (2012). Anxiety and Depression in Patients with Myocardial Infarction: Findings from a Centre In India, *Gen Hospital Psychiatry*. **34**: 160-165.
20. Turner SJ (1991). Nursing process, nursing diagnoses, and care plans in a clinical setting. *J Nurs Staff Dev*. **7**: 239-243.
21. Ulrich M, Zulueta AM, Caceres-Dittmar G et al (1993). Leprosy In Women: Characteristics and Repercussions. *Soc Sci Med*. **37**: 445-456.
22. Varkevisser CM, Lever P, Alubo O et al (2009). Gender and Leprosy: Case Studies in Indonesia, Nigeria, Nepal and Brazil. *Lepr Rev*. **80**: 65-76.
23. Walters AJ (1994). The comforting role in critical care nursing practice a phenomenological interpretation. *Int J Nursing Studies*. **31**: 607-616.

How to cite this article : George A, Khora T, Das P, Rao PSS (2013). Nursing interventions to manage anxiety levels of female inpatients admitted first time in a leprosy hospital. *Indian J Lepr*. **85** : 19-25.