

Psychiatric morbidity in leprosy patients: psychometric evaluated by the General Health Questionnaire-28 (translated Thai version).

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ABSTRACT :

PRATCHYAPRUIT W, POUNGTHANASARN S, JARUTAMARA C. PSYCHIATRIC MORBIDITY IN LEPROSY PATIENTS : PSYCHOMETRIC EVALUATED BY THE GENERAL HEALTH QUESTIONNAIRE-28 (TRANLATED THAI VERSION). THAI J DERMAOL 2011; 27: 151-162.

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Background: Besides physical health, leprosy makes a psychological, socio-economical impact on patients and their families.

Objective: To study psychiatric morbidity (PM) in Thai patients with leprosy.

Material and Methods: The psychiatric morbidity was evaluated by the Thai-version GHQ-28 in 128 leprosy patients during 2005-2008.

Results: The study revealed that 11 cases (18.8 %) had PM. Their psychiatric problems mostly fell into anxiety/sleep disturbance, followed by social dysfunction. Subjects from Bangkok and females had significant a risk of PM. Marital status as well as relapse leprosy influenced the PM development. There was no relationship of career, education level, health insurance, lepra reaction and family income to PM.

Conclusion: Leprosy patients have a higher risk of PM than the general Thai population. The counseling program is necessary for leprosy patients who are relapse cases, females, those in bonded/unbonded marriage and those from Bangkok who should all be focused on.

Key words: Leprosy, psychiatric morbidity, Thais

บทคัดย่อ :

วลัยอร ประชัยพฤทธิ, สมใจ พวงชนะสาร, จันทร์เพ็ญ จารุตามระ ปัญหาด้านจิตใจในคนไทยโรคเรื้อนไทย : ประเมินโดยแบบคัดกรองสุขภาพจิต General Health Questionnaire-28 ฉบับภาษาไทย วารสารโรคผิวหนัง 2554; 27: 151-162.

สถาบันโรคผิวหนัง กรมการแพทย์ กระทรวงสาธารณสุข

นอกจากปัญหาทางกายแล้วโรคเรื้อนยังส่งผลกระทบต่อทางจิตใจ เศรษฐกิจและสังคม ทั้งต่อผู้ป่วยและ ครอบครัว

วัตถุประสงค์: เพื่อหาความชุกของปัญหาสุขภาพจิตในผู้ป่วยโรคเรื้อนคนไทย

วัสดุและวิธีการ: ผู้ศึกษาใช้เครื่องมือวัดสุขภาพจิต GHQ-๒๘ ฉบับภาษาไทยทำการศึกษาในผู้ป่วยโรคเรื้อนจำนวน ๑๒๘ ราย ที่มารับการรักษาระหว่างปี พ.ศ. 2548-2551

ผลการศึกษา: ผลการศึกษาพบว่าผู้มีปัญหาสุขภาพจิต 11 ราย (ร้อยละ 18.8) ส่วนใหญ่มีปัญหาจากกลุ่มอาการวิตกกังวลและนอนไม่หลับ ตามด้วยกลุ่มอาการบกร่องทางสังคม ผู้ป่วยที่อาศัยในกรุงเทพและผู้ป่วยหญิงมีความเสี่ยงต่อการเกิดปัญหาสุขภาพจิตสูง สถานภาพสมรสและการกลับเป็นซ้ำมีอิทธิพลต่อความเสี่ยงที่จะเกิดปัญหาทางสุขภาพจิต ปัจจัยด้าน อาชีพ ระดับการศึกษา การมีหรือไม่มีหลักประกันทางสุขภาพ การเกิดภาวะเหวี่ยงจากโรคเรื้อนและระดับรายได้ของครอบครัวไม่มีผลต่อสุขภาพจิตของผู้ป่วยโรคเรื้อน

สรุป: ผู้ป่วยโรคเรื้อนมีปัญหาทางจิตใจสูงกว่ากลุ่มประชากรไทยทั่วไป จึงมีความจำเป็นที่จะต้องจัดโปรแกรมให้คำปรึกษาแก่ผู้ป่วยและการให้คำปรึกษาควรเน้นประเด็นกลุ่มอาการวิตกกังวล/นอนไม่หลับและการปรับตัวในสังคม โดยให้ความสนใจเป็นพิเศษแก่ผู้ที่โรคเรื้อนกลับมาเป็นซ้ำ สตรี ผู้ที่อยู่อยู่ในสถานภาพสมรสหรือขาดจากสถานภาพสมรส ผู้ที่อาศัยอยู่ในเขตกรุงเทพฯ

คำสำคัญ: โรคเรื้อน ปัญหาสุขภาพจิต คนไทย

Introduction

As regards recent the leprosy situation in Thailand, the prevalence and detection rate per 10,000 population declined to 0.18 and 1.05, respectively¹ but leprosy is still endemic in certain areas bordering between Thailand and her neighbors². In general, leprosy does not cause death, but the permanent physical deformity which is left behind with the patients, even after the infection is completely treated, is obviously recognized. About 11-51 percent of physically disabled leprosy cases did not recover from the deformity and 33-56 percent of newly registered patients already have clinical detectable impairments, often no longer amenable to drug treatment³. Moreover, patients' deformity, if there was any, decreased their capability to work and employment potential. There is a high chance for leprosy patients to lose their daily income which compromises their family's wellbeing. Consequently, financial problems aggravated their psychiatric morbidity which had already been rendered by leprosy itself. With the social stigma associated with leprosy, the psychiatric hazards from the disease are as bad as its physical manifestations, but only the latter attracts attention.

Leprosy has a profound impact on patients' daily activities, psychological and emotional states as well as social relationships. In fact, leprosy is an especially appropriate chronic skin disease for studying the inter-relationship of culture, mental health and medical illness because of its deeply rooted cultural meanings and the emotional burden. The quality of life (QOL)

and mental health scores of leprosy patients are worse than those of the general population⁴. Among factors potentially contributing to the deteriorated QOL of leprosy patients, i.e., physical deformities, perception of stigma, low education and low annual income, etcetera; the presence of perceived stigma showed the greatest association with adverse QOL⁵.

The psychiatric morbidity in Thai patients with leprosy has been neglected by health personnel in the dermatological field for so long, initially because dermatologists lacked interest in the psychological issue. More recently, it was due to a general disregard for leprosy itself because leprosy has been in decline whereas there is more intensity of focus on other economically and psychologically burdening skin diseases like psoriasis. This study aimed to assess the psychiatric morbidity in leprosy patients who attended at the Institute of Dermatology during 2005-2008.

Materials and methods

This cross-sectional study was conducted on 128 leprosy patients who registered at the leprosy clinic during October 2003-September 2004 and were still on follow-up during 2005-2008. All leprosy cases aged 15 years old and above, whether on treatment or under surveillance protocol were recruited. The selected patients must have already been on anti-leprosy regimens, according to the WHO recommendation, for at least 80 percent of the treatment period of time.

A semi-structured questionnaire was used to collect the illness course, demographic/socioeconomic data and patients' emotional feelings towards leprosy in general

and in association with their illness. In addition, physical examination and laboratory investigations concerning leprosy were also recorded. The duration of illness, clinical features according to the Ridley-Jopling (RJ) classification and bacterial load, lepra reaction and physical disability were the illness variables considered. Also subjects' emotional feelings and leprosy-related self-adjustment were the psychosocial variables included.

The subjects were assessed for psychiatric morbidity with the validated Thai version of self-administered screening 28-item General Health Questionnaire (GHQ-28) which has had good reliability and validity in the Thai population with the specificity 90.6% in males, 86.1% in females and the sensitivity 75 % in males, 85% in females⁶⁻⁷. In the GHQ-28, a respondent is asked to compare his/her recent psychological state within three weeks with his/her usual state. The questionnaire composed of 4 mental health-related domains; somatic symptom, anxiety-insomnia disturbance, social dysfunction and severe depression (7 items in each domain, in total 28 items). For each item, a 4-point Likert scale of severity was applied to indicate the severity of mental health (1-not at all, 2-not more than usual, 3-rather more than usual, 4-much more than usual). The higher the score the poorer the psychological wellbeing of the patient. Then the scales of severity were converted to the 0-0-1-1 system by which the 1 and 2 scales of severity indicated "no psychiatric morbidity" was scored "0" and the 3 and 4 scales of severity indicated "having psychiatric

morbidity" was scored "1"⁶. Afterwards the indicated scores of the total of 28 questions were summed. To detect psychiatric morbidity, the optimal cut-off for the summed score was set at 5/6, namely, those whose summed scores more than 6 were diagnosed as having psychiatric morbidity⁷. Furthermore, verbal expressions of subjects' emotional feelings about their illness and about their perceived social attitude towards their illness were also recorded. Finally, Odds Ratios, t-test, logistic regression were used to analyze the data with Epi Info version 2.

Results

There were 72 males (56 %), 56 females (44%), who together consisted of 114 new cases (89 %), and 14 relapse cases (11%) of leprosy. The subjects aged between 15-89 years old with mean ($\pm$ s.d.) 42 ($\pm$ 17) years. The duration of illness from the first recognition till the date of interview ranged between 1 - 456 months (mean [$\pm$ s.d.], 43 [$\pm$ 62] months). (Your standard deviation is greater than your mean which suggests this was not a normal distribution.) There was no statistical difference in subjects' age and duration of clinical symptoms between subjects with/without psychiatric morbidity (Table 1). The following demographic data were revealed in most subjects (data not shown); being married (58%), laborers (45%), educated below a bachelor's degree (72%), and having no health insurance (64%). About half of the subjects supported only one family member (52%) and the rest had to support more than one family member (48%).

Table 1. Comparison of age and illness duration between the subjects with/without psychiatric morbidity (n=128)

parameters	No PM (n=117)		PM (n=11)		t or z	df	p
	Mean	SD	Mean	SD			
Age (years)*	42.32	(± 17.09)	41.3	(± 18.10)	-0.181	122	0.857
Duration of illness (months)	44.34	(± 63.46)	29.55	(± 47.45)	-0.753	126	0.453

*Two cases were missing

Remark: PM stands for psychiatric morbidity

(The data for 'Duration of illness' has the standard deviation greater than the mean which suggests these were not normal distributions)

There were about 4 percent of the subjects who showed extremely negative emotional feelings (level 4) about their illness as well as about public's attitude towards them. The frequency of these subjects emotions ranked from the highest to the lowest fell into; regret/embarrassment, deep sense of public's repugnance, apprehension/depression/grief, lack of confidence and emotional suppression. They have experienced negative community behavior which was mostly caused by the fact that people fear leprosy because of its potential contagiousness. Anxiety about the outcome of the disease in particular and about their future in general and anxiety for their loss of income while attending the medical care were shown to exist in these subjects. Some patients were restricted in their participation in society and finally encountered social and financial problems because of visible impairments or simply because of the diagnosis of "leprosy". Few of them had thoughts of committing suicide. From the

subjects' point of view, in general people believed that leprosy was genetically determined so people did not want to involve themselves in an intimate relationship with leprosy patients. Female subjects worried that they would transmit the disease to their own offspring and to other households. They were also afraid of being abandoned and being repugnant, some even concealed the diagnosis of leprosy from their own family. On the contrary, male subjects were well supported by their families, i.e., they were accompanied by their wives and children on medical visits to the Institute of Dermatology or were urged to regularly take anti-leprosy medicines, etcetera.

The result from the GHQ-28 showed that 11 cases (18.9 %) had psychiatric morbidity (Table 2), and the average summed scores of the subjects with psychiatric morbidity (12 ± 6.60) were higher than those without (0.92 ± 1.40). (The standard deviation is greater than your mean which suggests this is not a normal

distribution.) When considered on each mental health domain the highest summed scores fell into anxiety/insomnia (3.36 ± 2.77), followed by social dysfunction (3.09 ± 2.30), somatic symptoms ($2.91 \pm$

1.45), and severe depression (2.00 ± 2.72) respectively. (The standard deviations are greater than half of the mean which suggests that this is not normal distribution.)

Table 2. Average sum scores of total 28-items of GHQ and of individual domains when compared the subjects with psychiatric morbidity to those without. (n=128)

Psychiatric domains	No PM (n=117) (Mean±SD.)	PM (n=11) (Mean±SD.)
Average sum scores of total 28-items	0.92 ± 1.40	12 ± 6.60
Somatic symptoms	0.35 ± 0.74	2.91 ± 1.45
Anxiety/insomnia symptoms	0.11 ± 0.39	3.36 ± 2.77
Social dysfunction	0.40 ± 0.84	3.09 ± 2.30
Severe depression	0.06 ± 0.30	2.00 ± 2.72

Remark: PM stands for psychiatric morbidity

Referring to Table 3, the subjects who lived in Bangkok which accounted for 49 percent of all subjects had 4.94 times more risk of psychiatric morbidity than subjects who were primarily from outside Bangkok (95% CI of OR 1.11 – 25.05, $p < 0.05$). Female subjects significantly increased the risk of psychiatric morbidity 6.43 times more than male subjects (95% CI of OR 1.21 – 45.19, p -value < 0.05). In considering subjects' role in their family, the spouse group; who in this study were all females, suffered significantly from psychiatric morbidity 4.35 times more than either the family's leader group or the dependant group (95% CI of OR 0.85 – 24.46, $p < 0.05$). However, when the gender parameter was controlled, the family role parameter

showed no significant risk of psychiatric morbidity. Regarding marital status which was divided into 3 groups: bachelorhood (30%), marriage (58%), widowhood/divorce/marriage separation (12%). The psychiatric morbidity manifested itself in all groups about 2.63 %, 10.81% and 12.5%, respectively. Forty females and fifty males got involved in married life, and among them twelve females and four males were being involved in dissolution of marriage. There was no significant association of marital status with psychiatric morbidity, but it seemed that psychiatric morbidity increased in those subjects under the influence of married life; either dissolution of marriage or still being in marriage bond. With regards to occupation and

education level, there were no significant associations between these parameters and psychiatric morbidity (data not shown).

Both new cases and relapse cases were classified according to the RJ clinical classification (data not shown) into indeterminate leprosy 4 cases (3.1%), tuberculoid leprosy 24 cases (18.8%), borderline tuberculoid leprosy 32 cases (25%), borderline leprosy 12 cases (9.4%), borderline lepromatous leprosy with/without erythema nodosum leprosum (ENL) 30 cases (23.4 %), lepromatous leprosy with/without ENL 24 cases (18.8 %) and the patients who presented with only ENL lesion 2 cases (1.6 %). Two (1.7%) of them had claw hands and foot drop. Ten (7.8 %) of 128 cases developed a lepra reaction before, during and after

treatments (Table 3). The subjects with relapsing leprosy tended to have 3.61 times more risk of psychiatric morbidity than the new cases (95% CI of OR 0.65 – 18.53, $p=0.06$). We did not find the significant association between the RJ clinical classification, bacterial load status, and lepra reaction with psychiatric morbidity. Most subjects in this study delayed going to hospital. They waited until their physical disability became obvious. This was due to the fact that they did not have sufficient knowledge about early symptoms of leprosy and its clinical sequel. Moreover, time consumed waiting at various service points placed them in conflict with their domestic work and with employers which de-motivated them from seeking early for medical care.

Table 3. Comparison of interesting parameters between subjects with/without psychiatric morbidity. (n=128)

Parameters		No PM (n=117)	PM (n=11)	Odd ratio (95% CI of OR)	P-value
Domicile	Suburban/rural				
	community	76 (96.20 %)	3 (3.80 %)	1 4.94 (1.11 -	
	Bangkok	41 (83.67 %)	8 (16.33 %)	25.05)	0.0139 [†]
Gender	Male	70 (97.22 %)	2 (2.78 %)	1 6.43 (1.21 -	
	Female	47 (83.93 %)	9 (16.05 %)	45.19)	0.0077 [†]
Marital status	Married	66 (89.19 %)	8 (10.81 %)	1	
	Single	37 (97.37 %)	1 (2.63 %)	0.22 (0.01 -1.88)	0.1316
	Dissolution of marriage	14 (87.5 %)	2 (12.5 %)	1.18 (0.15 -7.11)	0.845

Parameters		No PM (n=117)	PM (n=11)	Odd ratio (95% CI of OR)	P-value
Family roles	Leader	50 (94.34 %)	3 (5.66 %)	1	
	Spouse	23 (79.31 %)	6 (20.69 %)	4.35 (0.85-24.46)	0.0373 [†]
	Dependant	44 (95.65 %)	2 (4.35 %)	0.76 (0.08 -5.94)	0.76
Family income (baht/month)	> 15,000	20 (90.91%)	2 (9.09%)	1	
	≤ 15,000	97 (91.51%)	9 (8.49%)	0.93 (0.17 - 6.75)	0.9271
Leprosy status	New	106 (92.98 %)	8 (7.01 %)	1	
	Relapse	11 (78.57 %)	3 (21.43 %)	3.61 (0.65 - 18.53)	0.0694
Subjects classified by bacterial load of the skin	Multi-bacillary	64 (94.12 %)	4 (5.88 %)	1	
	Pauci-bacillary	53 (88.33 %)	7 (11.67 %)	2.11 (0.52 -9.16)	0.2439
Lepra reaction	No	108 (91.53 %)	10 (8.47 %)	1	
	Yes	9 (90.00 %)	1 (10.00 %)	0.83 (0.09-19.32)	0.8697

Remark: PM stands for psychiatric morbidity

P-value set at ≤ 0.05

† indicates the parameters which showed significant difference between subjects with and without psychiatric morbidity.

Concerning family income (Table 3), as we mentioned earlier, most subjects had to financially support their families. Unfortunately most of them could earn money which was lower than the average household-income of a Thai family which was 19,000 baht per month⁸. Moreover, they had to spend at least 1,500 baht on medical expense and transportation fee at each visit to the Institute of Dermatology. When we categorized the subjects according to their family income and the right to claim for financial supports*,

i.e., above v.s. below 15,000 baht/month as well as having financial support v.s. no financial support, we found that the amount of family income and health care schemes did not show a significant relationship to psychiatric morbidity. From this data, we also have learned that some patients tried very hard to hide their

*In this study the financial supports referred to are 1) the universal coverage health insurance system, 2) the social insurance system, and 3) the medical welfare system of civil servants and employees of state enterprises.

illness from the public by one means or another. For example, they might not reimburse for medical expense from financial sources because they would like to keep their health condition private or they have asked a physician to avoid the term of "leprosy" by using some other medical terms instead.

Discussion

Leprosy affects patients' lives in two aspects; 1) the recurrence of leprosy and concealing the disease which puts most patients in "anxiety of the disease", 2) the way of "coping with the disease in social life" and "the relationship with others"⁹. According to a few studies done on psychiatric morbidity in leprosy cases, the result showed that the subjects prone to psychiatric morbidity were those with physical deformities, those have been sick for a longer time at risk of physical deformities¹⁰⁻¹² and those with deformity at risk of low community acceptance and employment thus they risked having financial problems¹³. The lower the socio-economic status of the patients and the more severe deformity the patients had, the more extreme was the negative impact of leprosy on their mental health¹⁴.

When compared to the surveys done in Thailand in which the IGH-28 was used^{15,16}, this study found that the prevalence of psychiatric morbidity among those leprosy subjects (18.8 %) was higher than general Thais (12.8 %), but psychiatric morbidity was not limited to a particular symptom unique to leprosy. This result corresponded to the studies from Kenya and India, but

the prevalence of psychiatric morbidity in leprosy cases from those countries was much higher (56-76 %) ^{11,12}.

A struggle with daily life under particular social circumstances surely played a role in the development of psychiatric morbidity. We have learned in this study that the patients who lived in Bangkok were slightly lower in number than those from suburban and rural communities. The former had the higher risk of psychiatric morbidity than the latter. William BT, et al has shown that urbanization caused problems in psychosocial adjustment for many people and also affected particular clinical conditions¹⁷. This fact probably held true in our cases.

Our result agreed with Kisivuli AJ, et al that there was no association between patients' age, education level, occupation, clinical types according to either RJ classification or bacterial load and psychiatric morbidity. However, we found no significant association between the duration of illness, physical disability and psychiatric morbidity which was found in their study. This was possibly because of a small sample size of the subjects and only 2 cases with extremity deformity were recruited in our study. However, they found no association of gender with psychiatric morbidity, but we did. Leprosy seemed to further magnify psychiatric morbidity in the female subjects. In India, nearly 60 percent of females with leprosy who had visible disability, preferred to hide their disease, but even so, some had social problems¹⁸. Our study revealed that although males outnumbered females about 1.3 to 1, female subjects had a

significantly increased risk of psychiatric morbidity when compared to male subjects. We knew that most females in developing and underdeveloped countries, with few exceptions, suffered from marked economic and social dependency. Their status as a dependent group probably loads up females with mental burdens.

Kisivuli AJ, et al. and Verma KK, et al^{11,19} found that the prevalence of psychiatric morbidity was positively correlated with marital status. Verma KK, et al, pointed out that singles had more psychiatric morbidity than others. Whereas, our study demonstrated that the subjects with dissolution of marriage or engaged in marriage bond, not bachelorhood, showed a tendency to psychiatric morbidity. Family burdens and the illness condition of having leprosy might exaggerate the psychiatric morbidity in some patients, particularly in the female subjects. When we separately considered the psychiatric morbidity in individual domains, we found that the anxiety/insomnia symptoms were one of the two predominant psychiatric morbidity domains in these subjects. This confirmed the fact that anxiety was a core phenomenon of psychological distress⁶. Concerning patients' extremely negative emotional feelings, we found that the highest scales fell into regret, embarrassment followed by apprehension, a deep sense of repugnance, depression, grief, lack of confidence and emotional suppression. A previous study found that patients' experience of discrimination based on leprosy stigma was associated with their depressive state⁵.

Under the WHO recommendation, a leprosy patient is placed under multidrug therapy for at least 6 months up to 2 years and under surveillance for another 3-5 years or more according to their bacterial load. Although anti-leprosy drugs were provided free of charge and Thais enjoyed the universal coverage health insurance system and other health insurance programs, this study revealed that with the long-termed treatment course, the majority of Thai leprosy patients, more or less, faced financial burdens. Particularly, if they were a sole financial supporter of the family and/or their families lived on hand-to-mouth income. The aforementioned financial sources only supported for medical expenses and the universal coverage health insurance system provided them with a limited amount of budget per visit. To seek for medical treatment, they were often on sick leave, and loaded by additional expense for transportation fee and food etcetera. Surprisingly, we could not find the association between leprosy-related psychiatric morbidity and family income. We, unfortunately, did not have additional information to explain this finding.

The difference in some results between our study and the others' reports could be attributed to the difference in socio-economical background and cultural factors. Besides these factors, the difference in psychometric tools used in individual studies probably was one of the factors. Our study used the translated Thai version of the original GHQ-28 questionnaire which found that male subjects gave more false negatives in the test^{6,7}. A study to determine

the gender factor in the effect of socio-cultural beliefs on patients' perceptions of leprosy indicated that, the male model was not the single interpretative model for leprosy as far as socio-cultural aspects were concerned²⁰. As mentioned earlier, the small sample size possibly influenced our study result as we could see that the 95% C.I. of the study parameters were in quite a wide range.

Bharath S, et al., found that psychiatric morbidity was positively correlated with knowledge about the disease as well as social, emotional and health maladjustment. The same author revealed that the prevalence of psychiatric morbidity was significantly less among leprosy patients than those with psoriasis, but the severity of psychiatric morbidity, as measured by the GHQ, was significantly greater in leprosy²¹. Leprosy patients who had skin lesions, and also various types of physical deformity, and therefore, disability, which may attract social stigmata, which might accentuate their psychiatric morbidity.

As with leprosy, most people misunderstand the etiology, treatment, and prognosis in psychiatric morbidity. Initial lack of awareness of leprosy and an inappropriate first action are the primary contributors to delay in seeking medical advice, which delays presentation and is a recognized risk factor for disability in leprosy²². The knowledge of psychological coping is low in leprosy patients²³. There is a need to provide a mechanism of protecting leprosy individuals against the loss of social value, and to facilitate their engagement in daily social roles in

family and community which requires a patient-centered approach. Psychiatric assistance is needed for leprosy patients in order to clear their psychic aberrations, create awareness, boost morale and to give self-confidence. It requires the development of new life habits or ways of coping. Based on this study, Thai dermatologists should concern and look through quality care issues about psychiatric morbidity in leprosy patients.

Summary

This study revealed that leprosy patients had a higher psychological morbidity than the general Thai population. Approximately, 2 from 10 leprosy cases in this study suffered from psychiatric morbidity in which anxiety/sleepless and social dysfunction were the predominant symptoms. It is emphasized that psychological consultation and mental support are important in the management and rehabilitation of leprosy patients. The knowledge just about the disease itself and just for the patient is not enough. The psychological assistance for the patients and the extension of all essential knowledge about leprosy to their families and communities as holistic approach are necessary. Public awareness of accepting leprosy patients as a part of community is a crucial move to reduce social pressure. The counseling should emphasize on the coping mechanism of anxiety/sleep disturbance and social dysfunction, particularly in a female patient, a relapse case, those staying in bonded/unbonded marriage and those from an urban community.

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