Factors Affecting Inconsistency in Hospital Visits of Psoriasis Out-Patients

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Abstract

Psoriasis sufferers experience both psychological and social problems. However, most patients visit inconsistently for various reasons, creating obstacles to quality medication. This research aims to investigate factors affecting inconsistent visits for treatment of out-patients with psoriasis in Phitsanulok Province. The study mailed questionnaires to patients with psoriasis who had received treatment from state medical institutions under the Ministry of Public Health and the Higher Education Bureau, located in the Phitsanulok area. 234 patients - 148 males and 86 females - returned completed questionnaires. Even though 93.1 % of patients were satisfied to a moderate to high level with their treatment, 87 % did not undertake follow-up treatment. Principal reasons for non-followup are distance (32.97%), unqualified physicians (29.5%), wasted time (13.9%), and poor service (12.7%). More study of rural patient behavior and promotions to encourage rural patients to be more concern about their diseases might help address this problem. Current Thai psoriasis clinical practice guidelines for rural patients may need to be reviewed. Study is required to develop a health-related quality of life index.

Keywords : Psoriasis Clinical features Hospital visit Out-patient

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ปัจจัยที่ทำให้ผู้ป่วยโรคสะเก็ดเงินไม่เข้ารับการตรวจรักษาตามนัด

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บทคัดย่อ

สะเก็ดเงินเป็นโรคเรื้อรังที่อาการแสดงทางผิวหนังส่งผลกระทบต่อสภาพจิตใจและสังคม แต่ผู้ป่วยส่วนใหญ่ยังคงเข้ารับการรักษาไม่ต่อเนื่องทำให้เป็นปัญหาต่อคุณภาพการดูแลรักษา งานวิจัยนี้จัดทำขึ้นเพื่อศึกษาปัจจัยที่มีผลต่อการไม่เข้ารับการตรวจรักษาโรคสะเก็ดเงินอย่างต่อเนื่องในแผนกผู้ป่วยนอกของประชากรจังหวัดพิษณุโลก โดยวิธีการสำรวจกลุ่มประชากรที่เข้ารับบริการในสถานพยาบาลในสังกัดของกระทรวงสาธารณสุขและทบวงมหาวิทยาลัยในจังหวัดพิษณุโลก โดยการส่งแบบสอบถามทางไปรษณีย์ตามข้อมูลชื่อและที่อยู่ของผู้ป่วยที่ถูกบันทึกไว้ในสถานพยาบาลของรัฐทุกแห่ง พบว่าผู้ป่วยที่ตอบแบบสอบถามทั้งหมด 234 ราย เป็นเพศชาย 148 ราย หญิง 86 ราย แม้ว่าผู้ป่วยสะเก็ดเงิน ร้อยละ 93.1 มีความพึงพอใจต่อการให้บริการของสถานพยาบาลระดับปานกลางถึงสูง แต่ผู้ป่วยร้อยละ 87 เข้ารับการรักษาไม่ต่อเนื่องด้วยสาเหตุหลายประการ อาทิเช่น ระยะทางไกล ร้อยละ 32.97 ไม่พอใจคุณภาพแพทย์ผู้รักษา ร้อยละ 29.5 เสียเวลา ร้อยละ 13.9 และไม่พอใจคุณภาพบริการ ร้อยละ 12.7 การศึกษาพฤติกรรมการเข้ารับบริการของผู้ป่วย และการส่งเสริมให้ผู้ป่วยตระหนักถึงความสำคัญของการรักษาต่อเนื่องน่าจะเป็นแนวทางที่มีประโยชน์ในการดูแลผู้ป่วย การพัฒนางานวิจัยเพื่อประเมินความสัมพันธ์ระหว่างสุขภาพกับคุณภาพชีวิตมีความจำเป็นในการปรับเปลี่ยนแนวทางมาตรฐานการรักษาโรคสะเก็ดเงินของไทยให้เหมาะสมกับผู้ป่วยในแต่ละท้องถิ่น

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Introduction

The exact cause of psoriasis remains unknown (1). Possible triggers of psoriasis include genetic predisposition, environmental factors and disorders of the immune system (1). Approximately two percent of the world's population (2, 3) has the disease, and the number of male patients is very close to that of female patients. Psoriasis can occur in patients at any age, including newborn babies and the elderly (2). It is frequently found in patients in two age ranges: 20-30 years and 50-60 years. About 75% of patients contract the disease before the age of 40, which is still in the puberty period (20-60 years) (4). Psoriasis has been classified as an Immune Mediated Inflammatory disease (IMID); psoriasis patients also suffer from other systemic co-morbidity such as metabolic syndrome and cardiovascular disease. (5,6) Psychological side effects are common: 60% of them are stress (7), and perception of stigmatization. (3) However, no direct correlation has been found between psychological distress, psoriasis-related disability and such clinical variables as severity, site of involvement and disease duration. (3, 8, 9)

A survey conducted at Naresuan University Hospital between April 2008 and April 2009 showed that 8% of all patients with skin disease, came for treatment as out-patients presented with psoriasis. Disorders were observable in skin, nails and joints. The natural history of psoriasis includes erythematous macules or patches, large thick plaques of raised skin and white-silvery scales of dry skin around the scalp and predilection areas over elbows and knees. Some patients had patches and plaques all over their body. Clinical features found in nails are pitting nails, oil spots, onycholysis and subungual hyperkeratosis (10, 11). Joint disorders include pain in one or more joints, either small or large. Severe symptoms are pain and erythematous swellings around the joint area. There are two main therapeutic treatments: external and internal medication, including injections, and radioactive therapies (11). According to psoriasis stigmata, abundant big flakes of dry skin are chronic and inconsistent, which are hard to predict (4), hence causing worries to patients. As a consequence, sufferers tend to separate themselves from society (4), in particular those with no access to self-care information due to their communication problems or provincial residence.

Nasresuan University Hospital locates in Phitsanulok Province in the lower north of Thailand. In addition to Nasresuan University Hospital, other public health care medical institutions are situates over the nine districts of the province. These include hospitals under the Ministry of Public Health, private hospitals and hospitals under the Ministry of Military Affairs. Despite, several hospitals attempt to disseminate information to the public, most Thai people have limited knowledge concerning health care. It is assumed that patients would get better after receiving consistent treatment and increased knowledge about the disease. Nevertheless, results from observations show that patients do not consistently follow prescribed remedies; thus, they may have serious effects from the disease. Accordingly, this study further investigated factors related to out-patients' inconsistent visits to the hospital for healing purposes. The outcome from the study should be increased opportunities for improving assistance to patients with psoriasis, and guidelines for caring for patients with other common diseases. The study should also contribute information for improving physical and mental health care of patients, their intimates and others. It should help to realize the vision of Public Health Sector in Phitsanulok becoming one of the best skin care centers of the lower north of Thailand.

Materials and Methods

This research aimed to identify factors affecting inconsistent hospital visits of patients with psoriasis. It utilized questionnaires mailed to patients' contact addresses. These were obtained from all hospitals under supervision of Ministry of Public Health and from university hospital. The subjects were patients with psoriasis who visited an out-patient ward at any of the hospitals in Phitsanulok for treatment on at least twice. The questionnaire provided to subjects for their opinion regarding factors that might influence their visits including remedies and treatments received. Data were then analyzed and percentages calculated for such variables as: sex, age, ethnic group, education, marital status, number of children, career, income, reasons for inconsistent visits, treatments received at any private medical institution, levels of service satisfaction, and levels of knowledge concerning psoriasis.

A pilot study was initially conducted at Naresuan University Hospital to check the reliability and validity of the questionnaire contents. 'Inconsistent visit' was defined as: 'any history of loss to follow up for patients with an out-patient department appointment for continued treatment of psoriasis. After piloting, a revised questionnaire was sent to 528 patients at their addresses held by the hospital. Completed questionnaires were analyzed to identify factors affecting inconsistent hospital visits.

A total of 325 questionnaires were sent out and 234 (79%) were returned between October 2008 and January 2009. Each response sheet was carefully examined for completeness, and legibility followed by coding and statistically analyzed by SPSS for windows which enabled percentages for personal and other information to be calculated. In addition, the relationship between factors involving inconsistent visits to the hospital was determined, using paired T-test with the reliability value of at least 95 percent. Results are reported in two sections: personal data and data on healthcare visiting.

Results

Personal data

Of 234 questionnaires returned, 86 (37%) from females and 148 (63%) from males. Ages ranged from 11 to 70 years. Most patients were aged in the range 51-60 years (31%) or 41-50 (24%). The majority of patients (29%) were farmers; 43% completed elementary education, and 27% earned less than 1,000 Baht monthly. Data detailed in Table 1. Regarding to treatment or service satisfaction (Figure 1), 33% of patients who inconsistently visited the hospital for treatment were highly satisfied, 62% were moderately satisfied, and 5% were dissatisfied. Main reasons for inconsistent visits (Figure 2) were: unsatisfactory service or complicated processes, travel difficulty or length of distance between the patient's residence and the hospital, time loss, uncertainty about the physicians' healing skills and no insured health benefits or Gold Card for welfare care. Figure 3 shows how patients treat their psoriasis when they do not undertake follow up visits. Thirty-seven percent bought drugs from the drugstore, 30% went to a private clinic, 21% had no treatment, and 11% used herbal medicine.

Table 1 Demographic data of psoriasis out-patients

Characteristic	Number (n=234)	Percentage	p-value
Age (yrs)			0.90
<20	11	4.7	
21-40	52	22.2	
41-60	129	55.2	
>60	42	18.0	
Sex			0.79
Female	86	36.8	
Male	148	63.2	
Occupation			0.80
Unemployed	40	17.1	
Employed	183	78.2	
Student	11	4.7	
Education			0.42
Non-educated	20	11.7	
Primary school	101	42.3	
Secondary school	67	24.3	
>Secondary school	46	19.7	
Income (ThB/month)			0.24
<1,000	63	26.9	
1,001-3,000	40	17.1	
3,001-5,000	40	17.1	
>5,000	71	26.9	

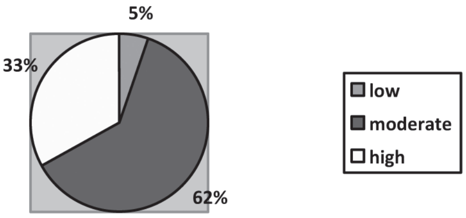

Figure 1 Satisfaction of healthcare service (for non-follow-up patients)

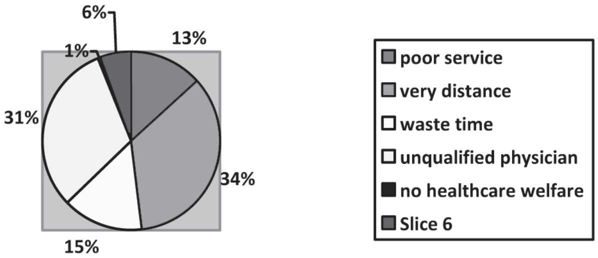

Figure 2 Reasons for lack of follow up

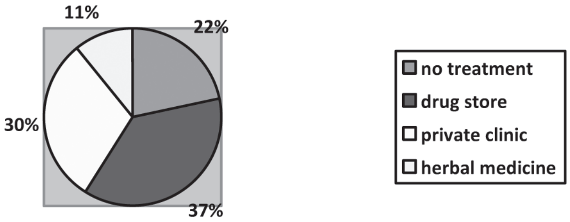

Figure 3 Treatment of cases who do not follow up

Discussion

International data indicates that psoriasis stigmata cause chronic psychological problems over life for 2% (2) of sufferers. Around 84% say that they have difficulties in maintaining social contacts. (4) Long term continuous treatment is necessary to control both skin and systemic manifestations. However, analysis of questionnaire responses indicates that 87% of psoriasis patients in Phitsanulok did not undertake follow-up treatment despite the fact that 94.7% of these patients were moderately or highly satisfied with the service hospitals provided. Principal reasons for non-follow-up were distance, unqualified physicians and wasted time for 27%, 25% and 12% of cases, respectively.

To understand the problem of inconsistent visits, some patient characteristics have to be considered. Typically, Thai rural persons use their prescribed drug until it is finished and then decide to see the physician again. However where there is non-follow up at the hospital 22% of psoriasis sufferers stop treatment, 37% buy drugs from drug store, and 11% use herbal medicine. The behavior of rural psoriasis sufferers are possibly different from those in urban areas who have more education, may be more concerned about their disease and have more opportunities to access other treatment modalities such as phototherapy or biological agent where patients have to strictly follow guidance from their doctor. Results of this study show that background and service satisfaction are not statistically associated with patients' inconsistent visits to hospital. Interestingly, many psoriasis patients in the Phitsanulok area had a low level of education which 43% completed only elementary, and this may be a factor affecting their knowledge concerning self-care. Their situation contrasts with that of patients residing in a capital city, more of whom had access to higher education than did patients in Phitsanulok. Urban dwellers are also more likely to be able to access many more sources of information such as radio, TV, textbooks and internet, and so to acquire more knowledge about psoriasis than patients in Phitsanulok. Consequently, further research should be undertaken on ways to inform patients and local communities about psoriasis, self-care and treatments. For instance, research might be conducted on alternatives to hospitals as means of providing information to patients; use of public media such as broadcasting and village public health volunteers as dissemination channels might be investigated.

However, further research is needed to explain why high patient satisfaction with service provided is associated with low participation in follow-up treatment. What parameters other than 'satisfaction' should be investigated? Many psychometric techniques exist but there is no consensus on the best approach. (12) Quality of life is multi-dimensional, determined by health, personal status and psychological factors and not simply impact of drugs on disease. A good instrument must provide data on all the above aspects and provide answers to assist in improving patients' lives - the major aim of therapy. (14) Moreover, subjective parameter such as BSA is the easier way to evaluation. (13)

Pros and cons of different evaluation strategies need to be considered. Up to 2000, Psoriasis Area and Severity Index (PASI) and Body Surface Area (BSA) measurement provided widely adopted measures in most trials of anti-psoriatic agents. (13,15) PASI and BSA are convenient methods for physicians, because they provide objective measurement. These methods remain in use in many institutes. However, neither is an ideal measure of psoriasis severity as some patients manifest an incompatible relation between disease severity and BSA involvement. (15) Quality of Life (QOL) is a more recent evaluation tool. (15) For example, in 2000 Kirby et al. developed a new scoring system - Salford Psoriasis Index (SPI) that correlates with the current clinical status of disease of each patient based on PASI and BSA. SPI score is indicated in three figures (sign, psychosocial disability, and interventions). It is claimed that SPI reflects a holistic approach in relation to all aspects of physical assessment, psychological disability and treatment resistance. (16) In this decade, the concept "Health Related Quality of Life (HRQL)" is considered to be a useful tool for determine the therapeutic process, evaluating treatment outcomes and clinical activities that facilitate doctor-patient communication and decision making. (18, 21) Hence, HRQL evaluation seems to be the most suitable tool for further study in this moment.

In conclusion, to improve quality of care of patients with psoriasis in rural areas, encouraging awareness of the importance of continuous treatment might be the first priority. All patients should be aware of their disease and recognize that consistent visits to the physician can give them the best modality of treatment. Further study of rural patients' behavior and awareness of the importance of continuous medical care might be essential for improving treatment of psoriasis and other chronic diseases.

Limitations of the study

Over half of psoriasis patients' contact addresses (recorded in the medical registration files of all medical institutions) were incomplete. Not all questionnaires reached patients due to non-delivery such as patients having moved to live elsewhere. Accordingly, the size of the respondent group was smaller than expected. Some patients had difficulty reading and comprehending the questionnaires.

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References

1. E. Gelfand J.M., Weinstein, R., Porter, S.B., Neimann, A.L., Berlin, J.A., Margolis, D.J.: Prevalence and Treatment of Psoriasis in the United Kingdom. Arch. Dermatol. 141:1537-41, 2005.
2. Langley, R.G.B., Krueger, G.G., Griffiths, C.E.M. : Psoriasis: epidemiology, clinical features and quality of life. Ann Rheum Dis. 64(suppl II):ii18-23, 2005.
3. Richards, H.L., Fortune, D.G., Griffiths, C.E., Main CJ.: The contribution of perceptions of stigmatization to disability in patients with psoriasis. J Psychosom Res. 50:11-5, 2001.
4. Zaghloul, S.S., Jeremy, M., Goodfield, D. : Objective Assessment of Compliance with Psoriasis Treatment. Arch Dermatol. 140:408-14, 2004.

5. Davidovici, B.B., Sattar, N., Jorg, P.C., et al. : Psoriasis and Systemic Inflammatory Diseases: Potential Mechanistic Links between Skin disease and Co-morbid Conditions. J. invest Dermatol 130:1785-96, 2010.
6. Krueger, J.G., Bowcock, A. : Psoriasis Pathophysiology: current concepts of pathogenesis. Ann Rheum Dis. 64 (Suppl II):ii30-6, 2005.
7. Fortune, D.G., Richards, HL. Main, C.J., Griffiths, C.E.M.: What patients with psoriasis believe about their condition. J Am Acad Dermatol. 39:196-201, 1998.
8. Fortune, D.G., Main, C.J., O'Sullivan, T.M., Griffiths, C.E.M.: Quality of life in patients with psoriasis: the contribution of clinical variables and psoriasis-specific stress. Br J Dermatol 137:755-60, 1997.
9. Sampogna, F., Sera, F., Abeni, D. : Measures of Clinical Severity, Quality of Life, and Psychological Distress in Patients with Psoriasis: A Cluster Analysis. J Invest Dermatol 122:602-7, 2004.
10. Gudijonsson, J.E.: Psoriasis, In : Wolff K, Goldsmith L.A., Katz S.I., Gilchrest B. A., Paller A.S., Leffell D.J. eds. Fitzpatrick's Dermatology in General Medicine, 7th ed. New York: McGraw-Hill. p.169-92, 2008.
11. Peter, C.M., Schalkwijk, J. : Psoriasis. In : Jean L.B., Joseph J., Ronald P.R., Thomas D., Jose M. M., Anthony J. M., eds. Dermatology, 2nd ed. Spain: Elsevier limited. p. 115-36, 2008.
12. Both, H., Essink-Bot, M., Busschbach, J. Nijsten, T. : Critical Review of Generic and Dermatology-specific Health-Related Quality of Life Instruments. J. Invest Dermatol 127:2726-38, 2007.
13. Ashcroft, D.M., Po A.W., Williams H.C.: Griffiths CEM. Clinical measures of disease severity and outcome in psoriasis: a critical appraisal of their quality. Br. J. Dermatol 141:185-91, 1999.
14. Feldman S. R., Krueger G. G., Psoriasis Assessment Tools in Clincal Trials. Ann. Rheum Dis. 64(Suppl II):ii65-8, 2005.
15. Krueger, G.G., Feldman, S.R., Camisa, C. et al. : Two considerations for patients with psoriasis and their clinicians: What defines mild, moderate, and severe psoriasis? What constitutes a clinically significant improvement when treating psoriasis? J. Am. Acad. Dermatol. 43(2):281-5, 2000.
16. Kirby, B., Fortune, D.G., Bhushan, M. et al. : The Salford Psoriasis Index: an holistic measure of psoriasis severity. Br. J. Dermatol 142:728-32, 2000.
17. McKenna, S.P., Cook, S.A., Whalley, D. et al. : Development of the PSORIQol, a psoriasis-specific measure of quality of life designed for use in clinical practice and trials. Br. J. Dermatol 149:323-31, 2003.

18. Prinsen, C.A., Lindeboom, R., Sprangers M. et al. : Health-Related Quality of Life Assessment in Dermatology: Interpretation of Skindex-29 Scores Using Patient-Based Anchors. J. Invest Dermatol 130:1318-22, 2010.
19. Velikova, G., Booth, L., Smith, A.B. et al.: Measuring quality of life in routine oncology practice improves communication and patient well-being: a randomized controlled trial. J. Clin. Oncol 22:714-24, 2004.
20. Tan, J.K., Wolfe, B.J., Bulatovic, R., Jones, E.B., Lo A.Y. : Critical Appraisal of Quality of Clinical Practice Guidelines for Treatment of Psoriasis Vulgaris, 2006-2009. J. Invest Dermatol 138:2389-95, 2010.
21. Woolf, S.H., Grol, R., Hutchinson, A. et al.: Clinical guidelines: potential benefits, limitations, and harms of clinical guidelines. Br. Med. J. 318:527-30, 1999.