

CLINICAL REPORT

Educational Multidisciplinary Training Programme for Patients with Chronic Pruritus

Anja BATHE¹, Uwe MATTERNE¹, Markus DEWALD², Tilman GRANDE² and Elke WEISSHAAR¹

¹Department for Clinical Social Medicine, Occupational and Environmental Dermatology and ²Department of Psychosomatic Medicine, University Hospital Heidelberg, Germany

Chronic pruritus (>6 weeks) is a worldwide symptom and a burden in many dermatological, systemic and psychosomatic/psychiatric diseases. Patients with chronic pruritus frequently endure a long and complicated disease course, failure of therapy and a substantial reduction in quality of life. Psychological mechanisms may be involved in eliciting and coping with chronic pruritus. Treatment of pruritus aims to be aetiological, but as a primary illness it is symptomatic. The needs of patients with chronic pruritus are diverse. Multi-disciplinary educational and psychological training programmes aim to improve patients' understanding of the disease, raise the motivation to apply more adaptive self-care measures, and consequently improve quality of life. Maintenance of health through educational programmes, such as the one presented here, can be considered as important complementary measures in the field of medicine and psychosomatics, which should also be offered to patients with chronic pruritus. Key words: burden of skin disease; health education; itch; prevention; pruritus; training programme.

(Accepted May 8, 2009.)

Acta Derm Venereol 2009; 89: 498–501.

Elke Weisshaar, Clinical Social Medicine, Occupational and Environmental Dermatology, University Hospital Heidelberg, Thibautstrasse 3, DE-69115 Heidelberg, Germany. E-mail: elke.weisshaar@med.uni-heidelberg.de

Chronic pruritus (>6 weeks) is worldwide a symptom and burden in many dermatological, systemic and psychosomatic/psychiatric diseases (1–3). The significant impact chronic pruritus has on quality of life (QoL) is comparable to the burden of chronic pain (4, 5). The needs of patients with pruritus are diverse and refer, among others, to treatment, information about the disease (e.g. course, aetiology, prevention) as well as how to cope with stress caused by chronic pruritus. There are published accounts of patients using maladaptive coping strategies, for instance anger repression or inward aggression, and they are often described as having a low self-image and self-esteem. Obsessive compulsive disorder, depression or schizophrenia may be accompanied by pruritus (6–9).

One of the most frequent complaints of patients seeking healthcare services is the perceived lack of time of

healthcare professionals, which is often insufficient to allow a detailed explanation of disease characteristics, discuss possible coping and self-care strategies and offer the patient an opportunity to ask questions. Patients often feel that these needs are not met in routine clinical practice. Many patients with pruritus are faced with a chronic disease course entailing long treatment periods, work disability and considerable impairment in QoL. Secondary and tertiary preventive programmes for individuals in various professions, such as hairdressers, healthcare workers, cleaners and kitchen employees, who are afflicted with occupational skin diseases, and comprising individual health education and counselling have been implemented successfully in Germany (10–12). The German Atopic Dermatitis Intervention Study (GADIS) was able to show that age-related educational programmes (addressing children and adolescents with atopic dermatitis and their parents) are effective in the long-term treatment of atopic dermatitis, which extended to positive effects on coping with itch, scratching behaviour and sleep disruption (13, 14). The programme is now widely available, reimbursed by health insurance and very popular in Germany. An educational and psychological programme, designed to reduce itch and help patients with chronic pruritic skin diseases cope with itch, and delivered by nurses, has been shown to have positive short-term effects (15–17). A recent study found long-term effects of a brief pruritus training for adult atopic dermatitis patients (18). This article presents data about a multidisciplinary educational and psychological training programme for patients with chronic pruritus of various origins, outlining its content, implementation and the patients' perspectives and experiences.

ORGANIZATION OF AN EDUCATIONAL AND PSYCHOLOGICAL TRAINING PROGRAMME FOR PATIENTS WITH CHRONIC PRURITUS

Preliminaries

Patients with chronic pruritus may present to a variety of different medical departments. The University Hospital Heidelberg, Heidelberg, Germany, has implemented a specialized itch clinic located at the department of dermatology. Patients presenting here are invited to attend an educational multidisciplinary training programme

focusing on chronic pruritus. The programme modules are organized in cooperation with dermatologists, allergologists, psychologists, public health scientists and psychosomatic consultants. The programme contains four 2-h modules. All participants are seen by a dermatologist/allergologist and a psychologist before participating in the programme in order to arrive at a precise diagnosis concerning the underlying aetiology of chronic pruritus and to allow exclusion of patients with clinical manifestations of mental disorder (apart from minor forms of depression). Past medical history and physical status are obtained by a dermatologist/allergologist for each patient by assessing the patient's file. Medical history comprises the disease course, previous diagnostic measures and treatment, skin care behaviour and individual coping with the pruritus sensation. Psychosocial aspects, such as quantity and quality of interpersonal relationships, psychological stress and psychosomatic factors, are thoroughly assessed.

Structure and content of the educational and psychological training programme for patients with chronic pruritus

The four modules of the educational and psychological training programme aim at providing medical information about the different manifestations and aetiology of chronic pruritus, at fostering the recognition of a more adaptive coping with individual stressors causing pruritus, at mitigating pruritus through adequate handling of the symptom, and at teaching an established and easy-to-learn relaxation technique (Table I).

Patients are encouraged to participate consecutively in all four modules, but provision is made for patients not being able to do so by the self-contained character of each module. The modules are run by a dermatologist/allergologist, a clinical psychologist and a health educator (public health specialist), with the dermatologist/allergologist being present during modules 1 and 2. All modules offer ample opportunity for participants to ask

questions, discuss the topics and share their experiences with other participants.

The first module provides an introduction to, and an outline of, the programme, and patients learn about the multi-factorial nature of the pruritus sensation and the diagnostic examinations that are currently available. The module then gives information on the epidemiology of chronic pruritus, its clinical picture, severity and complications. This is done with the aim of enabling the patients to understand the complexity and potential interactions of different factors contributing to pruritus, as well as to evaluate present media depictions of pruritus. Then a relaxation technique, which is performed in all four modules, is introduced by the clinical psychologist. Progressive muscle relaxation (PMR) according to Jacobson (19, 20) is also an established general coping strategy (21, 22) for the relief of the burden of pruritus (23).

In the second module the health educator informs patients about the skin anatomy and the main functions of the skin. The dermatologist/allergologist explains the variety of medical treatment options for chronic pruritus, including daily dermatological care with moisturizers, topical treatments modalities for the relief of pruritus (e.g. urea, menthol) and systemic treatments.

Module three deals with the behavioural response to the pruritus sensation. The itch-scratch cycle (24) is used to portray the relationship between pruritus and (unconscious) reflex actions and to show that scratching can damage the skin and exacerbate pruritus. Personal experiences of the participants are discussed. The scratching diary is introduced, which may serve as a means to help patients become aware of the many situations in which scratching is automatically used to alleviate the pruritus sensation. Various alternatives to scratching, as well as different self-care measures, are introduced and discussed. This module draws on elements of habit reversal theory (25) for pruritus (26).

Module four addresses stress, the stress reaction and the interactions that can occur between stress and

Table I. *Content of the educational multidisciplinary teaching programme for patients with chronic pruritus*

Session	Trainer	Main topics
1	Dermatologist, psychologist, health educator	Round of introductions Basic medical information about factor constellations causing pruritus and its diagnostic investigations Introduction and conduction of relaxation technique: Jacobson's progressive muscle relaxation (PMR)
2	Dermatologist, psychologist, health educator	Short round of introductions Basic information about skin anatomy and its main functions Basic medical information about therapeutic measures and treatment of chronic pruritus Introduction and conduction of PMR
3	Psychologist, health educator	Short round of introductions Introduction of scratch diary Explanation of the itch-scratch cycle Coping with itch: alternatives to scratch and self-care measures Introduction and conduction of PMR
4	Psychologist, health educator	Short round of introductions Stress management (relation between itch and stress, physiological reactions of stress, identification of individual stressors) Introduction and conduction of PMR

pruritus (27, 28). Stressful situations in the workplace and the domestic sphere are illustrated. The hierarchy of coping strategies (29) are discussed and adaptive coping strategies are practised individually. Participants are encouraged to adapt these strategies for their individual requirements.

EXPERIENCES WITH THE PROGRAMME

To date, six educational multidisciplinary training programmes for patients with chronic pruritus, containing four units each, have taken place. The average number of participants was six (Table II). It is notable that 11/25 (44%) of the participants had somatoform pruritus or pruritus of undetermined origin (Table II). The teaching units took place in the late afternoon (16.00–18.00 h) to offer a convenient time-frame for both working and retired individuals. The majority of participants were retired. Participants were very pleased with the programme. They particularly appreciated the fact that it allowed time for discussions and asking questions. Several participants emphasized feeling less disappointed about symptomatic treatment and the uncertainty underlying the aetiology of pruritus after participation in the programme.

PMR was exceptionally well received. Most participants would have liked to spend even more time practising PMR. Many had not been familiar with any relaxation technique, or they used ineffective methods or strategies that led to disappointment with relaxation techniques. Misconceptions about relaxation techniques in general could be altered and patients reported feeling empowered by having learned an effective relaxation technique. They also expressed an explicit wish for more

time to be made available for sharing personal experience with the healthcare system. Medical doctors have an important function in objectifying the individual’s pruritus problem.

MEETING THE NEEDS OF PATIENTS WITH CHRONIC PRURITUS

In order to meet the needs of patients with chronic pruritus, healthcare providers ought to be able to acknowledge the effect chronic pruritus has on individual patients and realize the potential for improvement if these needs are optimally addressed. This can potentially be achieved by providing a comprehensive educational multidisciplinary training. Today, patients have access to a wide range of medical literature and can join self-help groups, particularly by the use of the internet. Healthcare providers, including medical doctors, increasingly play an important role as a source of information themselves and as guides to interpret information from other sources. One possibility to help patients with pruritus obtain necessary and evidence-based information lies in patient educational and psychological training programmes, providing information on disease course, aetiology and treatment options. They also offer a way to teach these patients behavioural modification strategies and foster a more critical and reflective individual able to select strategies that mitigate the pruritus sensation without harmful side-effects. An optimal approach would also include partners and families, as they are important sources of social support. The content and procedure of such educational and psychological training programmes ought to be guided by the needs and beliefs of patients with chronic pruritus.

Table II. *Diagnoses of the patients participating in the educational multidisciplinary teaching programme for chronic pruritus*

Category according to IFSI classification of itch (1)	Participant’s clinical diagnosis and location of pruritus	Number of participants (n = 25)
Category I and V	Dermatoses	8
	– atopic dermatitis	
	– prurigo nodularis	
	– urticaria	
	– lichen planus	
Category II	– lichen amyloidosis	4
	Systemic diseases	
	– paraneoplastic pruritus	
Category III	– haematological pruritus	2
	Neurological	
Category IV	– multiple sclerosis	7
	– genital	
	Somatoform pruritus	
	– general	
Category VI	– scalp	4
	– genital	
	Pruritus of undetermined origin	

IFSI: International Forum for the Study of Itch.

CONCLUSION

Little attempt has been made to provide educational and psychological training programmes for individuals with chronic pruritus. This may have resulted from the complexity and diversity of the symptom of pruritus, its frequent multi-factorial origin and the lack of effective therapeutic regimens. The symptom of chronic pruritus poses a challenge to the clinician, since a long and complicated disease course necessitates timely interventions. The programme outlined here, addressing the needs of patients with chronic pruritus from a multidisciplinary perspective, was well received by the patients who have participated so far, and highlights the urgent need for such programmes. Acting upon the notion of the “informed patient”, it is crucial to pass on information applicable to all patients with pruritus. By the same token, it is essential to be able to tailor the educational and psychological training to individual requirements, as chronic pruritus is associated with a wide

range of conditions. Behavioural modification strategies should be part of such programmes, such that patients can break the itch-scratch cycle. These courses can also teach adequate skin care procedures. Altogether, this programme aims at empowering patients with pruritus to be able to weigh the pros and cons of each strategy and select the most effective one to alleviate the bothersome pruritus sensation and gain a better QoL.

The maintenance and regaining of health by educational and psychological means is an important complementary measure in a comprehensive medical care system. It is expected that educational and psychological training programmes, as well as teaching effective self-care measures, will play an important role in modern disease management of chronic pruritus. It is hoped that the presented concept of an educational and psychological training programme for patients with chronic pruritus requiring further empirical evaluation will offer an impetus for more integrated care for chronic manifestations.

REFERENCES

1. Ständer S, Weisshaar E, Mettang T, Szepletowski JC, Carstens E, Ikoma A, et al. Clinical classification of itch: a position paper of the International Forum for the Study of Itch. *Acta Derm Venereol* 2007; 87: 291–294.
2. Weisshaar E, Kucenic MJ, Fleischer AB: Pruritus: a review. *Acta Derm Venereol* 2003; 213: 5–32.
3. Weisshaar E, Apfelbacher CJ, Jäger G, Zimmermann E, Bruckner T, Diepgen TL, et al. Pruritus as a leading symptom – clinical characteristics and quality of life in German and Ugandan patients. *Br J Dermatol* 2006; 155: 957–964.
4. Desai NS, Poindexter GB, Monthrope YM, Bendeck SE, Swerlick RA, Chen C. A pilot quality-of-life instrument for pruritus. *J Am Acad Dermatol* 2008; 59: 234–244.
5. DeLong LK, Huang A, Kini S, McIlwain M, Van L, Finch T, et al. The burden of chronic pruritus is comparable to that of chronic pain using time trade-off utilities. 5th IDEA Congress, Nottingham, UK, 7th–9th September 2008 (abstract).
6. Calikusu C, Yücel B, Polat A, Baykal C. The relation of psychogenic excoriation with psychiatric disorder: a comparative study. *Comp Psychiatr* 2003; 44: 256–261.
7. Schneider G, Driesch G, Heuft G, Evers S, Luger TA, Ständer S. Psychosomatic cofactors and psychiatric comorbidity in patients with chronic pruritus. *Clin Exp Dermatol* 2006; 31: 762–767.
8. Mazeh D, Melamed Y, Cholostoy A, Aharonovitch V, Weizman A, Yosipovitch G. Itching in the psychiatric ward. *Acta Derm Venereol* 2008; 88: 128–132.
9. Pacan P, Grzesiak M, Reich A, Szepletowski JC. Is pruritus in depression a rare phenomenon? *Acta Derm Venereol* 2009; 89: 109–110.
10. Weisshaar E, Radulescu M, Bock M, Albrecht U, Diepgen TL. Educational and dermatological aspects of secondary individual prevention in healthcare workers. *Contact Dermatitis* 2006; 54: 254–260.
11. Weisshaar E, Radulescu M, Soder S, Apfelbacher CJ, Bock M, Grundmann JU, et al. Secondary individual prevention of occupational skin diseases in health care workers, cleaners and kitchen employees: aims, experiences and descriptive results. *Int Arch Occup Environ Health* 2007; 80: 477–484.
12. Soder S, Diepgen TL, Radulescu M, Apfelbacher CJ, Bruckner T, Weisshaar E. Occupational skin diseases in cleaning and kitchen employees: course and quality of life after measures of secondary individual prevention. *JDDG* 2007; 5: 670–676.
13. Staab D, Diepgen TL, Fartasch M, Kupfer J, Lob-Corzilius T, Ring J, et al. Age-related, structured education programmes improve the management of atopic dermatitis in children and adolescents: results of the German Atopic Dermatitis Intervention Study (GADIS). *Br Med J* 2006; 332: 933–938.
14. Weisshaar E, Diepgen TL, Bruckner T, Fartasch M, Kupfer J, Lob-Corzilius T, et al. Itch intensity in the German Atopic Dermatitis Intervention Study (GADIS): correlations with quality of life, coping behaviour and SCORAD severity in 823 children. *Acta Derm Venereol* 2008; 45: 892–896.
15. van Os-Medendorp H, Ros WJ, Eland-de Kok PC, Kennedy C, Thio BH, van der Schuur-van der Zande A, et al. Effectiveness of the nursing programme "Coping with itch": a randomized controlled study in adults with chronic pruritic skin disease. *Br J Dermatol* 2007; 156: 1235–1244.
16. van Os-Medendorp H, Eland-de Kok PC, Ros WJ, Bruijnzeel-Koomen CA, Gryphonck M. The nursing programme "Coping with itch": a promising intervention for patients with chronic pruritic skin diseases. *J Clin Nurs* 2007; 16: 1238–1246.
17. van Os-Medendorp H, Eland-de Kok P, van Linge R, Bruijnzeel-Koomen C, Gryphonck M, Ros W. The tailored implementation of the nursing programme "Coping with Itch". *J Clin Nurs* 2008; 17: 1460–1470.
18. Evers AWM, Duller P, de Jong EMGJ, Otero ME, Verhaak CM, van der Valk PG, et al. Effectiveness of a multidisciplinary itch-coping training programme in adults with atopic dermatitis. *Acta Derm Venereol* 2009; 89: 57–63.
19. Jacobson E. The origins and development of progressive relaxation. *J Behav Ther Exp Psychiatr* 1977; 8: 119–123.
20. Jacobson E. Progressive relaxation. *Am J Psychol* 1987; 100: 522–537.
21. Carlson CR, Hoyle RH. Efficacy of abbreviated progressive muscle relaxation training: a quantitative review of behavioral medicine research. *J Consult Clin Psychol* 1993; 61: 1059–1067.
22. Arena JG, Blanchard EB. Biofeedback and relaxation therapy for chronic pain disorders. In: Psychological approaches to pain management: a practitioner's handbook. In: Gatchel RJ, Turk DC, editors. New York: Guilford Press, 1996: p. 179–230.
23. van Os H, Eland P. Treatment of patients with pruritus from the nursing perspective. In: Zylic Z, Twycross R, Jones EA, editors. Pruritus in advanced disease. Oxford: Oxford University Press, 2004: p. 179–190.
24. Stangier U, Ehlers A, Gieler U. Measuring adjustment to chronic skin disorders: Validation of a self-report measure. *Psychol Assess* 2003; 15: 532–549.
25. Azrin NH, Nunn RG. Habit-reversal: a method of eliminating nervous habits and tics. *Behav Res Ther* 1973; 11: 619–628.
26. Grillo M, Long R, Long D. Habit reversal training for the itch-scratch cycle associated with pruritic skin conditions. *Dermatol Nurs* 2007; 19: 243–248.
27. Joachim RA, Handjiski B, Blois SM, Hagen E, Paus R, Arck PC. Stress-induced neurogenic inflammation in murine skin skews dendritic cells towards maturation and migration: key role of intercellular adhesion molecule-1/leukocyte function-associated antigen interactions. *Am J Pathol* 2008; 173: 1379–1388.
28. Fjellner B, Arnetz BB. Psychological predictors of pruritus during mental stress. *Acta Derm Venereol* 1985; 65: 504–508.
29. Lazarus RS. Coping theory and research: past, present, and future. *Psychosom Med* 1993; 55: 234–247.