In-Patient Pulmonary Rehabilitation

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U. Kaiser, S. Lippitsch, M. Schmitz, Hochgebirgsklinik Davos-Wolfgang/Switzerland

Background

Although medical progress in pneumonology is accompanied by improved diagnostic facilities and drug treatment, morbidity and mortality of chronic diseases of the lower airways and the lungs (CDAL), including bronchial asthma, (obstructive) bronchitis and lung emphysema, are rising. In childhood, bronchial asthma is the most common chronic disease worldwide.

Due to rising morbidity and mortality of chronic diseases of the lower airways and lungs (CDAL), the total (direct and indirect) costs of these diseases are increasing (up to 5,1 billion of DEM a year). Inadequate management of CDAL out-patients may be the key-reason for this situation. Only 30% of all patients with CDAL are treated by a pulmonary specialist. Thus, efficacy of in-patient pulmonary rehabilitation should play a central role in the general management of CDAL.

However, critique puts a heavy burden on ressources, structure, methods and financing of in-patient rehabilitation programmes. German Society of Pneumonolgy (Deutsche Gesellschaft für Pneumologie, DGP), Scientific Section for Prevention and Rehabilitation, and social securances formulated disease specific targets and methods of pulmonary rehabilitation, which are located on the somatic, functional, psychosocial and educative levels (DGP, 1997).

A modern programme of pulmonary rehabilitation consists of
- comprehensive diagnostic facilities
- medical drug therapy
- physiotherapy, including sport therapy
- psychosocial rehabilitation
- patient education
- nutrition
- social medicine

(DGP, 1997; Kaiser et al. 1997a, b)

Therefore, the Questionnaire of Quality-Assurance (QA-Q) has been developed to cover these aspects of pulmonary rehabilitation and to measuire its effectiveness.

Method

Since 1994 the QA-Q (Questionnaire of Quality-Assurance) monitores patient´s expectations, the use of therapeutic modules, aspects of patient´s satisfaction with therapy the usefulness of the rehabilitation programme and changes in the somatic, functional and psychosocial status (Kaiser, 1994a,b). So far, about 8000 Patients have been examined at the end of their rehabilitation sojourn in the Hochgebirgsklinik Davos-Wolfgang, Switzerland.

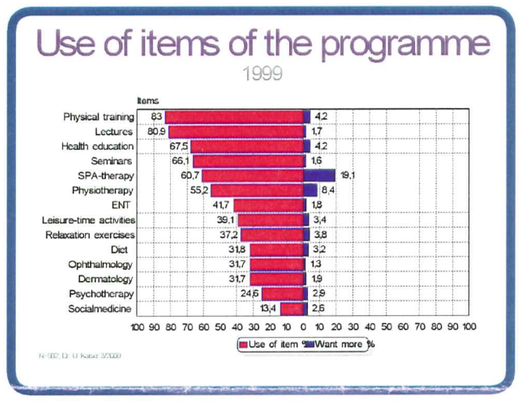
In this study, about 930 patients were included. They stayed in hospital in 1999 for at least 3 weeks to participate in the rehabilitation programme. 43.2% of the sample were male, 56.8% female. 51.8% stayed in the Hochgebirgsklinik Davos-Wolfgang for the first time. 48.2% already had experiences with the hospital. For description, the sample has been devided in classes of ranges of age. The most frequent class ranges from 51 years to 60 years (28.3% of the sample). The second is the older group of 61 years and above (22.6%). The youngest gruop is the one less represented. Just 4.1% of the sample are 20 yeras and younger.

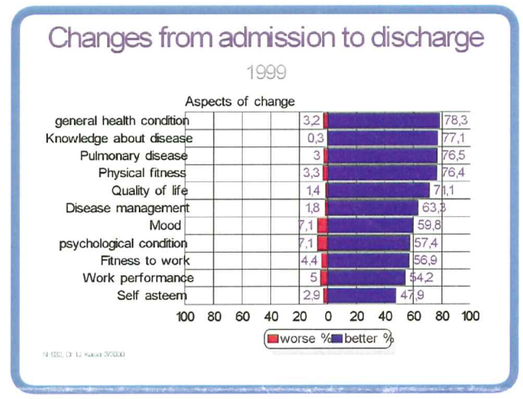
Results

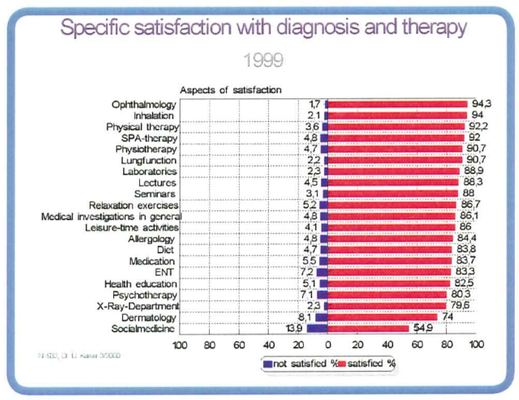
Individual targeting determines the use of therapeutic components of the rehabilitation programme. Therefore, patient´s expectations are one of the concerns of the questionnaire. In the QAQ, patient´s expectations are collected throegh an open question without any given categories or multiple choices. The reported expectations are generated by categorizing of the patient´s answers. General improvement of the medical condition was expected by 60.7%. 38.2% of the patients expected to experience a reduction of the symptomatology. A change in medication is expected by 21.5% and only about 17.0% of the patients expected an improvement concerning the disease management. It is to be seen that, in general, patient´s expectations are more or less of a passive nature. The fewest expectations dealt with an active kind of engagement.

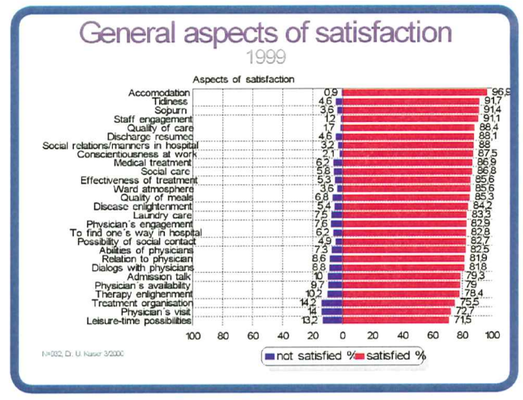
Another part of the QA-Q deals with patient´s satisfactions in different domains of health and life.In general, patient´s satisfaction with the rehabilitation programme is very high. The reported expectations are fulfilled in more than 90%. In 57.1% all aspects of the expectations have been fullfilled, in 37.2% the expextations are fulfilled partly. Together, in more than 95% a minimal target (e.g. general improvement, stabilization of CDAL) is reached, 47.2% to 78.9% report an improvement which includes somatic and functional aspects of pulmonary rehabilitation. As a reflecrtion of these results 90.1% thought of the Hochgebirgsklinik Davos-Wolfgang as the right institution to care for their disease.

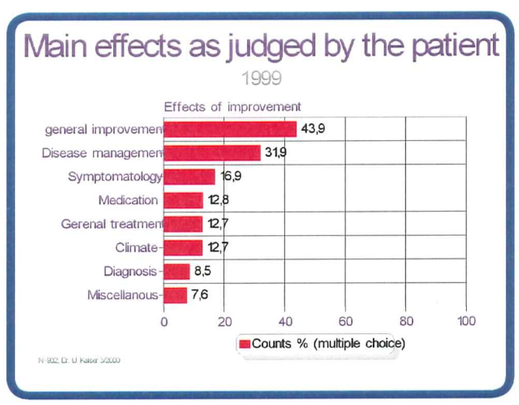
The diagrams illustrate the portions of use of programme items, different changes from admission to discharge and several effects of the programme, such as various aspects of satisfaction and health improvment.











Conclusion

These results demonstrate the efficacy and success of pulmonary rehabilitation in in-patients with CDAL. The efficiency of the structures, ressources and processes of the rehabilitation programme and the relevance of in-patient pulmonary rehabilitation is supported. The QA-Q is a useful tool which can easily be integrated into the clinical life. It allows a permanent internal quality management on the basis of an empirical datadase system.

Hochgebirgsklinik Davos-Wolfgang
CH-7265 Davos-Wolfgang
Switzerland

Adresses

Dr. phil. Udo Kaiser, Dipl.-Psych. Stefan Lippitsch & Dr. med. Michael Schmitz
Hochgebirgsklinik Davos-Wolfgang
CH-7265 Davos-Wolfgang
Tel.: 0041-81-417 3544
Fax: 0041-81-417 3548
Email: udokaiser@bluewin.ch

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