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Commentary

# Dermatological rehabilitation: Content, Prospects and a guide to get there

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#### **Abstract**

The chances and opportunities of dermatological rehabilitation are not fully exhausted among dermatological experts. Reasons for that lack of referral are insufficient knowledge and education about the chances and opportunities of dermatological rehabilitation. Rehabilitation offers an extended approach of treatment to the underlying disease, including the treatment of comorbidities, psychological burden and the problems at workplace and personal and social life. With a rehabilitational program we get the chance not only to treat diseases and their severity but also the affected individuals with a holistic approach. In the following, the reader will get a better chance to understand the contents and prospects of a dermatological rehabilitation, as well as how to propose an application for rehabilitation.

**Keywords:** Dermatological rehabilitation, Chronic inflammatory disease, Dermato-oncology, WHO, ICF, Application, Integral medicine

**Abbreviations:** WHO: World Health Organization; ICF: The International Classification of Functioning, Disability and Health; AWMF: Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaft e.V; DLQI: Dermatological Life and Quality Index

#### Introduction

The knowledge about dermatological rehabilitation with its chances, prospects and contents, is still not prevalent enough among dermatological experts, both in clinics and practices. During the medical training programs in the various countries including further medical specialization after medical license there is only little focus on the concept of rehabilitation, and the significance is rather low in the syllabus. In the present however, the term of rehabilitation has gained more significance in the field of dermatology and the old stigma of a "health resort" stay is almost obsolete.

The WHO defines rehabilitation as "a set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment" (1967) [1]. The present term and instructions originate from a model described in the ICF (International Classification of Functioning, Disability and Health) in 2001 [2], stating the correlation between three perspectives (Figure 1):

- 1. Body function and structures
- 2. Activities and participation (at individual and societal level)
- 3. Personal and environmental factors (at contextual level)

Through rehabilitation measurements we aim to improve and stabilize the participation of the patients occupational, society and social life. The health condition itself is considered as a complex network of many challenges. One of them includes the so-called contextual factors, subdivided into environmental and personal factors [3]. Personal factors involve the personal activity of the patient, meaning the own capability of learning, communication, and productivity at work for example. Environmental factors are by example the age, sex, education, and culture of the patient [4]. They can either have a positive or negative effect on the health condition. The model also includes the individual body functions and structures, e.g., the weight, size, ethnicity, and fitness of the patient [4]. These could be an advantage or limitation for the patient regarding the disease. Another perspective is the activity and participation of the patient at individual and societal level. The participation of the

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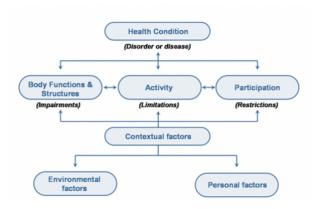


Figure 1: Interactions between the perspectives of ICF (WHO 2001:18).

patient, individually or societally, can be impaired or untouched. It is very important to determine those contextual and personal factors to establish a good long-term outcome of the health condition. Within the framework of rehabilitation, the whole spectrum of activity and participation should be analyzed, and a guide to a holistic health promotion should be developed in cooperation with the patient.

#### **Urgent Care vs. Rehabilitation**

The principal aim of our health care system is to treat, cure or stop the progression of diseases. In the curative health care system (clinics and practices), the disease itself is the main source of treatment [5]. Contextual, environmental and personal factors are mostly neglected since the main goal is to ensure urgent care. In rehabilitation we think of a health condition as the fundamental problem. This includes specific impairments, limitations, and restrictions of the patient in context to environmental and personal factors, caused by the underlying disease. Integrating all these things together in a multifactorial treatment, is the foundation of rehabilitation medicine, so called integral medicine [6].

When activities, body functions and the participation of the patient are impaired or endangered (this can be anything from transportation, communication, handling stress, capacity of worklife or psychological factors), is a rehabilitation almost inevitable. Within the framework of rehabilitation, we do not only treat the disease itself, but we also analyze the whole spectrum of activity and participation of the patient and create an individual plan to guarantee a better long-term care for home [7].

To better understand the abstract concept and to get a closer look at chances and prospects of dermatological rehabilitation, we will discuss chronic-inflammatory disorders as an example.

#### **Applied Dermatological Rehabilitation**

Example: Chronic-inflammatory diseases and dermatological rehabilitation – chances and prospects

### What are the contents and prospects of a dermatological rehabilitation?

During a rehabilitation program the underlying disease of the patient is treated according to the latest medical standard. In Germany such a program has a timeframe of 21 days in specialized dermatological rehabilitation centers. Therefore, in the case of chronic-inflammatory disorders, such as psoriasis or atopic dermatitis, phototherapy has a large significance in the treatment plan since that specific therapeutical regimen develops full efficacy after longer time periods of treatment. Phototherapy is often used in combination with saline or sulfur baths (then called balneo-phototherapy) to enhance the treatment outcome [8]. Patients will also benefit from an intensed local therapy with ointments and lotions (minimum twice daily) supported by the nursing staff. During these individual treatment sessions, the patient will learn how to use specific ointments or creams, where to use them correctly and specially to use a sufficient amount which all helps to reach a better outcome (educational training). In the dermatological outpatient care, the patients most often use insufficient amounts of local therapy (ointments) because of lack of knowledge and education about it [9]. Furthermore, to complete the optimal curative treatment, I many cases continuation, change, or induction of a specific systemic therapy (if indicated) has gained more importance and significance over the past years in the field e.g., of psoriasis and atopic dermatitis with new antibodies or small molecules targeting specific inflammatory cells and molecules [10].

Another characteristic of dermatological rehabilitation is that also other comorbidities of the patient such as internal, cardiological, rheumatological or psychiatric ailments are targeted. For example, a psoriasis patient, who also has a known psoriasis arthritis, will choose a rehabilitation facility which is covering both disciplines, dermatology and rheumatology. The patient will profit from a combined treatment of his dermatological and rheumatological symptoms. This includes not only the curative treatments of the diseases themselves but also a broad spectrum of physio-therapeutical, ergo-therapeutical and sport therapies. The German Society for Medical Guidelines (AWMF, Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaft e.V.) recommends that during the long-term care of a psoriasis patient he should at least conduct one dermatological medical rehabilitation [11].

Furthermore, intense psychological care plays an important role during rehabilitation. Individual and/or group sessions help to evaluate and analyze potential patients' psychological impairments and support the patients' capacities to improve and stabilize the disease and its circumstances. Screening for depression with specific scores and questionnaires, but also measurement of quality of life (such as DLQI, Dermatology Life Quality Index) in addition to disease specific activity scores belong to a holistic approach in rehabilitational medicine [12]. As needed further therapeutical interventions will be provided.

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Figure 2: An individual physiotherapeutical support is mandatory during a rehabilitational program. (© Nikolai Wolff).

Additionally, rehabilitation provides a specific sports and exercise program for each patient, for example (aqua) aerobics, ergometry or even archery (Figure 2). It is important that the sports program during the rehabilitation prepares the patient to continue exercising at home which guarantees sustainability. In professional rehabilitation clinics, overweight patients will also get the chance to have individual nutrition counseling and participate in specific adiposity programs, including educational training and cooking classes. Moreover, topics like smoking cessation, relaxation exercises (e.g., pilates, yoga, Qigong) play a specific role in rehabilitation.

Besides above-mentioned practical approaches, the patient will also experience a diagnosis-specific educational training to better understand the causes, the etiology, clinical picture and therapeutical opportunities of his dermatological disease. They will get the chance to learn about the comorbidities of the disease, and how to encounter and treat those comorbidities. In addition, each patient will be educated by a social worker to evaluate the obstacles and chances for reintegration into work after rehabilitation (Figure 3). Additionally, in qualified cases the patients get support to apply for a disabled person's pass. If return to work does not to be possible anymore the social worker will help the patient to apply for pension. But much more often the workplace and reintegration into work life are of huge significance during rehabilitation. Thus, the

chances and possibilities of the patient's occupation and needed aids will be intensively discussed or even requested. If the execution of the current occupation is endangered, there are specific individual measurements to be applied for during the rehabilitation, to enable the best possible outcome for the patient (medical occupational oriented rehabilitation) [13].

#### **Clinical Pictures in Rehabilitation Medicine**

Any disease that limits the participation of the patients social and work life can be an indication for attending a dermatological rehabilitation. The most often encountered clinical pictures in dermatological rehabilitation are of chronic inflammatory origin. Typical examples would be atopic dermatitis and psoriasis [14]. The patients most often fight with daily limitations of stigma, laborious care and maintenance of a healthy skin, pruritus, and frequent specialist visits. Another important field of skin diseases in rehabilitation are oncological diseases, for example malignant melanoma or cutaneous lymphomas which have become much more frequent and have gained importance in dermatology during the last 10 years [15]. In dermato-oncological rehabilitation focus is on psycho-oncological care, educational training about the disease, physical therapy and to improve and treat sequelae of the disease and its treatments such as contractions by scars, lymph edema or drug related side effects. E.g. (manual) lymph drainage is one of the most



Figure 3: Social workers help the patients to reintegrate into work and social life. (© Nikolai Wolff).

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important physical exercises in dermato-oncological rehabilitation [16]. In these cases, it is very important to choose a rehabilitation clinic with a specialization on dermato-oncological diseases offering a specified program.

#### How to apply for rehabilitation?

The first obstacle of the attending physician of the patient is the lack of knowledge on how to complete the application for a rehabilitation. In Germany for employed and unemployed patients who are in working age, the first contact is the German public pension fund. For already retired patients or patients not being in working age, their health insurance is responsible as first contact [17]. There are specific forms which need to be completed by both the medical doctor and the patient. These forms can be easily found on the webpage of the mentioned institutions [18]. The second obstacle for most physicians is the content of the application. It is not sufficient to only name the diagnosis. Specific limitations and restrictions of the activity of the patient in social and work life are required and should be written down in detail [19]. It is always helpful to summarize previous therapeutical measurements and the important anamnesis of the patient. In the section of previous therapeutical measurements, it should be clarified that a spectrum of dermatological treatment options has been exhausted (for example an intensive local therapy with ointments, UV-therapy, and systemic therapy have failed to improve the disease in the long term).

In the application form it should be clearly demonstrated that the disturbance of personal, social, and work life is still disrupted so that there is high need for a rehabilitational program.

#### **Conclusion**

In summary, the contents of dermatological rehabilitations are extensive, broad and do not include dermatological treatments only. In fact, it targets the entire health condition including side effects and comorbidities instead of the disease only. This unique holistic approach to the patients' health condition gives a good prospect of the patient's long-term health and well-being.

After reading and proposing this article, we can conclude that the knowledge about prospects and contents of dermatological rehabilitation are not well known among the medical society. However dermatological rehabilitation represents a great chance to our patients, especially those who suffer from a chronic disease or a dermato-oncological disease. It guarantees a better long-term outcome of the disease, and it prevents the impairment of the patients social, personal, and work life. Every dermatological specialist should be aware of that chance, and if needed, he should be familiar with the applicational process.

Further, we concluded that the actual application for a dermatological rehabilitation is generated through a bureaucratic system of papers and files which are all available online, but there is a lack of advertisement and education for dermatological rehabilitation.

In the future, we can predict that there will be various indications for a dermatological rehabilitation ranging from chronic-inflammatory disease and dermato-oncological diseases to dermato-psychological burdens. Dermatological rehabilitation will always be a significant part of our health care system, so it is very important to address and even more, to promote the contents and prospects

of dermatological rehabilitation amongst our colleagues and future patients. This article serves as a short, but important, reminder and guide for the great prospects and contents of dermatological rehabilitation.

#### **Conflict of Interest**

The authors Jomana Al Halabi Al Attar and Athanasios Tsianakas certify that they have no affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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