

# Capacity-Job-Fit: Operationalisation of the psychological person-job-fit with the Mini-ICF-APP capacity dimensions

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## Abstract

Mental disorders are frequent and chronic health problems. About one fourth of the general population is suffering from any common mental disorder like anxiety, depression, adjustment disorders. A great part of them are working employees. Mental disorders at work are therefore an important topic in both the clinical as well as occupational setting, especially as nowadays psychosocial capacities such as flexibility, endurance, contact building and group interaction are the mainly needed capacities at work.

In order to describe the person-job-fit (and thus work ability) precisely, the capacity profile of the person must be compared with the demands the workplace poses. This can be done with the capacity concept of the Mini-ICF-APP (Linden, Baron & Muschalla, 2009). The Mini-ICF-APP is an ICF-based short instrument which allows to describe the capacity profile of a person on thirteen capacity dimensions. In parallel to the capacity profile of the person, the capacity demands of the workplace must be known. For assessing these work demands, the Mini-ICF-APP-W has been developed. It measures to which degree each of the thirteen capacity dimensions is needed in a specific workplace. It thus describes the capacity demand profile of the workplace.

In case there are big differences between the capacity level of the employee and the demands the workplace poses, this may be an indicator that there is a problem with the person-job-fit. Three reactions are possible: a) improving or restoring the soft skill(s) of the person by training or therapy, b) dispensing the person from work (sick leave certification), c) workplace adjustment, in order to adjust the demands to the person's capacity level and profile.

## Key words

ICF, soft skills, capacity, mental disorder, social medicine, person-job-fit

## Mini-ICF-Job-Fit: Operationalisierung des psychischen Person-Job-Fit mit dem Fähigkeitskonzept nach Mini-ICF-APP

### Kurzfassung

Psychische Erkrankungen sind häufige und chronische Erkrankungen, etwa ein Viertel der Menschen leiden an irgendeiner psychischen Erkrankung. Ein Großteil von ihnen sind berufstätig. Psychische Erkrankungen am Arbeitsplatz sind daher ein nicht zu vernachlässigendes Phänomen. Ein häufiges Problem ist Arbeitsunfähigkeit wegen psychisch bedingter Beeinträchtigungen in der Arbeitsausübung. Um die Arbeitsfähigkeit festzustellen, kann das Fähigkeitsprofil eines Menschen mit dem Profil der Fähigkeitsanforderungen am Arbeitsplatz verglichen werden. Das Fähigkeitsprofil der Person (und etwaige Beeinträchtigungen) kann mit dem Mini-ICF-APP beschrieben werden. Analog dazu ist eine Beschreibung der Arbeitsanforderungen notwendig. Diese kann mit dem Mini-ICF-APP-W erfolgen. Das Mini-ICF-APP-W kann als Selbst- oder Fremdrating verwendet werden. Es erfasst für die 13 psychischen Fähigkeitsdimensionen, in welcher Weise und in welchem Ausmaß diese Fähigkeiten in der konkreten Tätigkeit von einem Menschen verlangt werden.

Wenn bei einem Abgleich deutlich wird, dass die Arbeit Fähigkeiten verlangt, die eine Person nicht erbringen kann, dann liegt ein Problem mit dem „Person-Job-Fit“ vor (French, 1973). Darauf gibt es drei mögliche Reaktionen: a) die Wiederherstellung der unzureichenden Fähigkeiten (z.B. Therapie oder Training), b) die Entpflichtung von der Arbeit (z.B. Arbeitsunfähigkeitsattest oder Erwerbsminderungsrente) oder c) die Herstellung eines passenden, d.h. leistungsgerechten Arbeitsplatzes (z.B. BEM, LTA, Arbeitsplatzanpassung).

### Schlüsselwörter

ICF, Fähigkeiten, psychische Erkrankung, Sozialmedizin, Person-Job-Fit

## 1 Work ability and psychological person-job-fit

It is currently often debated in public whether modern working world or specific conditions at work make people mentally ill. There are no robust findings which would support this assumption (Meier-Credner & Muschalla, 2019; Linden & Jacobi, 2018). This assumption however prevents that the core problem is adequately recognized and handled, i.e. the person-job-fit (French, 1973) for employees with mental disorders.

Mental disorders are chronic health problems, about one fourth of the general population is affected from any common mental disorder (Stansfeld et al., 2008; Wittchen et al., 2011). A great part of them is working and employed. Mental disorders are therefore a relevant phenomenon which needs to be recognized in companies as well as in health care settings.

There is a number of psycho-mental capacities (defined in the Mini-ICF-APP) which can be mainly impaired by mental disorders. The modern working world does not “make” sick or cause illness, but poses psycho-mental capacity demands to employees, such as cognitive and interactional demands. For persons with mental disorder, fulfilling these demands perfectly can be a problem, especially in case there are hardly degrees of freedom for coping. At most workplaces, degrees of freedom become fewer, as there may be high demands for flexibility and for continuous education, there may be time pressure and multitasking, and controlling of work outcome. Sick leave (GBA, 2014) due to mental health problems is thus increasing. In consequence, there is need for re-inventing workplaces with degrees of freedom, which have some tolerances towards persons’ individual capacity profiles and particularities.

In the sense of the ICF (WHO, 2001) this means that work demands (context factors) can be arranged in a way that they fit to the person’s capacity level and profile and that there are degrees of freedom for fulfilling the capacity demands. In order to create person-job-fit for a concrete employee – and therefore to establish work ability – the capacity level and profile of the employee must be known. Then the work demands can be set accordingly. Therefore the capacity profile of the person and the work demands must be described precisely and differentiatedly.

## 2 Operationalisation of the person-job-fit

Making a decision on work ability means to decide whether a person with an illness can continue to carry out certain work tasks (in spite of the illness) on his own or not. Misfit of person’s capacities on the one hand and work demands on the other hand may come along with sick leave, i.e. inability to work.

For work ability decision on the one hand, the capacity level of the person is relevant, but on the other hand also the concrete description of the work demands is needed (DRV, 2012; SGVP, 2012). Practical instruments for the description of psychologically relevant capacity demands are useful within the frame of social medicine work ability decision making, occupational reintegration management, personal selection. Assessment of person capacities is, additionally to the social-medicine settings, important in potential analysis, analysis of needs for capacity training in selected employees or even in work groups or departments (Linden et al., 2014).

Parallel to the internationally validated capacity rating Mini-ICF-APP (Linden et al., 2009) which describes the capacity level of the person, the work version was developed for the capacity-oriented description of work demands (Mini-ICF-APP-W, Muschalla, 2018a, b). A first study was conducted with this Mini-ICF-APP-W by using an interview and a self-rating questionnaire version. The study was done in a sample of 166 persons who were presently in a somatic rehabilitation (Muschalla, 2018a, b). The participants were asked to describe which concrete duties they associate in their job with each of the capacity dimensions, e.g. which concrete rules and routines are there at a person’s concrete workplace as a salesman. A content validation of the capacity demands dimensions was done by using the free text qualitative responses from the participants. Inter-rater-reliability was assessed (Inter-Rater-Reliabilität  $r = .63 - .91$ ; Muschalla, 2018a). With the Mini-ICF-APP-W a concrete workplace can be described in detail. It assesses which work duties require which psychological capacities to which degree. The assessment of capacity demands can be done on two different scales, i.e. a quantitative (time amount to which the capacity is required during a normal working day) and a qualitative scale (according to the medical ethics basics rule of non-damage (Beauchamp & Childress, 2008)). The self-rating version of the Mini-ICF-APP-W contains one item per capacity dimension, and three additional items (i.e. whether the person has changing working times or alternating layers,

amount of global mental work demands, amount of global physical work demands) (Table 1).

**Instruction: Are the following capacity demands relevant at your workplace? To which degree do you agree?**

Performance and capacity demand	Strongly disagree	Disagree	Partially	Agree	Strongly agree
Adjustment to rules and routines: In this work you have to adhere strictly to prescribed instructions, rules and routines (be on time, meet deadlines and work processes).	0	1	2	3	4
Planning and structuring of tasks: For the most part, this work requires you to structure and plan your work on yourself.	0	1	2	3	4
Flexibility: In this work you must handle it to be constantly interrupted / disturbed or you must adjust to changes.	0	1	2	3	4
Applying knowledge and competence: In this work you must have broad knowledge and be up to date in your field of expertise.	0	1	2	3	4
Decision making and judgment: In this work you have to make decisions that affect third parties or tangible assets (for example, customers, employees, materials, money).	0	1	2	3	4
Proactivity: In this work you have to know what to do and take the initiative by yourself.	0	1	2	3	4
Endurance: In this work you have to be able to hold on and continue what you are doing in spite of problems.	0	1	2	3	4
Assertiveness: In this work you have to be able to express your opinion or a given position to others.	0	1	2	3	4
Contacts to others: In this work you have to be able to talk to persons profitably and arouse sympathy (for example, patient or client short conversations).	0	1	2	3	4
Group integration: In this work you have to be able to work well with others in a team.	0	1	2	3	4
Dyadic relations: In this work you have to be able to build a trustful relationship with individuals.	0	1	2	3	4
Self-care: In this work you have to attach great importance to a well-groomed appearance and one's own health.	0	1	2	3	4
Mobility: In this work you have to do many paths, be it in the house or outside.	0	1	2	3	4
Global physical fitness: In this work you have to be extremely physically fit (muscle strength, physical endurance, flexibility).	0	1	2	3	4
Global psychological fitness: In this work you have to be extremely mentally resilient (concentration, endurance, flexibility).	0	1	2	3	4
Working rhythm: In this work one has a frequently changing work rhythm (changing shifts, day and night shift).	0	1	2	3	4

**Table 1**

The self-rating version of the Mini-ICF-APP-Work: Capacity demands at work (Muschalla, 2018b).

### 3 Person-Job-Fit in patients with positive and patients with negative work ability prognosis

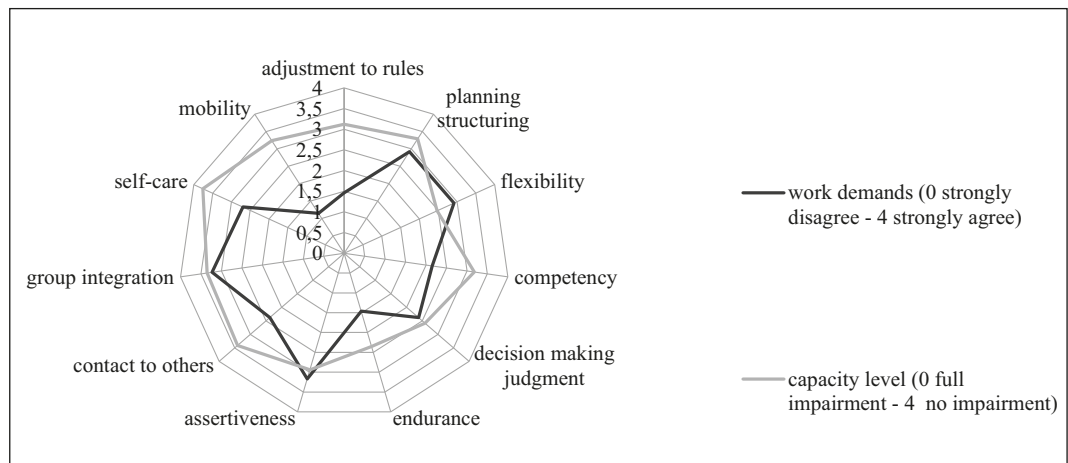
Within this above mentioned study (Muschalla, 2018a,b) 166 patients with mixed somatic illnesses were systematically investigated concerning mental disorders and capacity impairments with a structured diagnostic interview (MINI, Sheehan et al., 1998; Mini-ICF-APP, Linden et al., 2009). In patients who reported a mental health problem in the MINI, a comparison of capacity level (Mini-ICF-APP) and capacity demands at work (Mini-ICF-APP-WS) was done. When assessing the work demands, participants were asked to refer to their present workplace, or to their last workplace in case they were presently unemployed.

Additionally to the structured interview, an independent physician gave a judgment on the general work ability prognosis of the patient, i.e. whether the patient can continue working in his job in the future.

Patients with negative work ability prognosis according to the physician had a mismatch of capacity level and work demands in the dimensions flexibility, endurance, and in the interactional capacities assertiveness, contacts and group integration (Figure 1). The capacities of these persons were on average relatively low (in comparison to the group who according to the physician had a positive work ability prognosis). At the same time, these patients rated their work demands tendentially higher than the group with positive work ability prognosis.

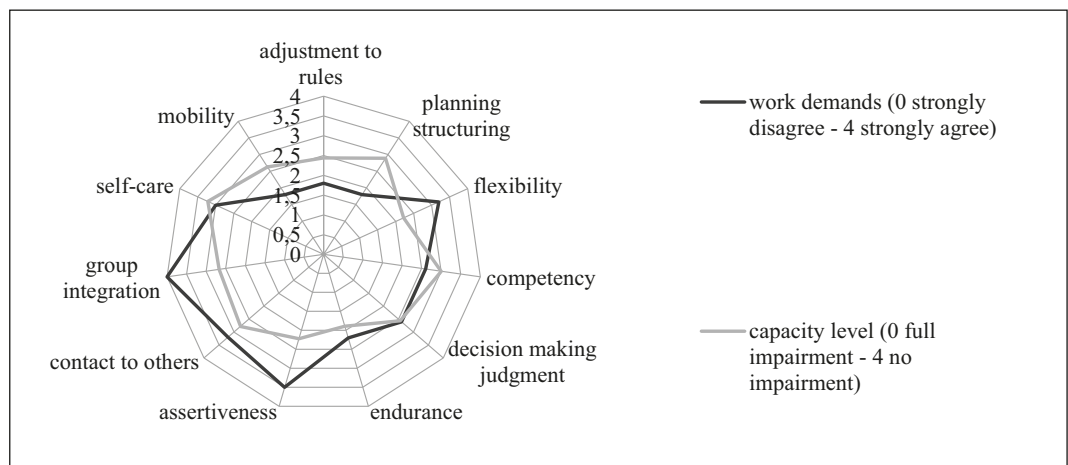
**Figure 1**

Capacity profile and capacity demand profile in persons with mental health problems who have got a positive work ability prognosis for their current profession (n=17)



**Figure 2**

Capacity profile and capacity demand profile in persons with mental health problems who have got a negative work ability prognosis for their current profession (n=9)



The group with positive work ability prognosis by their physicians did not show a clinically relevant mismatch between capacity level and capacity demands (Figure 2). In almost all capacities, the capacity level was higher than the perceived capacity demands. The only capacity for which the work demands were rated with a higher score than the capacity level was the dimension flexibility. The level of perceived flexibility demands was similar in both the group with positive and in the group with negative work ability prognosis.

#### 4 Limitations and Outlook

The results show that it is possible to visualize person-job-fit by means of the Mini-ICF-APP psychological capacity dimensions, when comparing persons capacity level and work demands.

Since the here reported groups of patients with positive and negative work ability prognosis are very small, these results can only be understood descriptively. It is a first step towards a description of person-job-fit with Mini-ICF-APP and Mini-ICF-APP-W. There is need for further systematic research in different clinical indications and in other settings (occupational health services, occupational rehabilitation and occupational health prevention) in order to gain broader and reliable empirical data on type, frequency and distribution of person-job-misfit phenomena.

In the present study the two Mini-ICF-APP measures were used in parallel with rating scales ranging from 0 – 4: a higher value means a higher work demand in a specific capacity (Mini-ICF-APP-W), or a higher level of the respective person's capacity (Mini-ICF-APP). Thereby parallelity of the two measures has been assumed. However, it remains unclear which qualitative anchors the participants used when filling in the work demand rating. It is for example unclear how participants decided to rate the degree of a work demand as 3 (mostly true) or 4 (fully true).

#### 5 Implications for the practice

The capacity level of a person can be compared with the capacity demands level of the workplace. In case capacities are required which cannot be fulfilled by the person, then there is a problem with the person-job-fit. There are three strategies to solve such a problem:

a) improving or restoring the soft skill(s) of the person by training or therapy,

b) dispensing the person from work (sick leave certification),

c) workplace adjustment, in order to adjust the capacity demands to the person's capacity level and profile.

In clinical practice, a comparison of person capacities and work demands and a visualization by means of a „capacity star“ (Figure 1+2) can be helpful when entering the topic work ability with a patient. The comparison as such, and a pictured illustration can be used as additional information in social medicine decision making processes, e.g. work ability prognosis decisions, suggestions for work aids, or training necessities, and choice of the type of training or aids.

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