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Are retired persons fitter in their psychological capacities than unemployed? A cross-sectional representative study in Germany

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ABSTRACT

Objectives Beyond specific aspects of numerical or verbal intelligence or cognitive speed, a broad range of psychological capacities are generally important in school, job and social life for all age groups. People have to quit the labour market up from a certain age about 65, whereas (younger) unemployed are motivated for return to work. The question is which psychological capacity profiles can be found in different employment groups (employed, mini-jobbers, voluntary service, retired, unemployed).

Design A representative cross-sectional survey was conducted in Germany, reaching 2528 persons.

Setting Republic of Germany.

Participants Randomly selected inhabitants throughout Germany.

Primary and secondary outcome measures Participants reported their sociodemographic and work characteristics, as well as their psychological capacity profiles (Mini-ICF-APP-S) and work-related specific mental health problems (work-anxiety, embitterment).

Results The unemployed had—compared with all other groups—highest rates of work-anxiety and embitterment (16.3%). In contrast to the unemployed, the 'older' (70 aged) retired group, who were no longer working on the labour market, seldomly reported work-anxiety (2.6%) or embitterment (4.2%). The unemployed had the worst capacity profiles, most frequently no school degree (11.5%), most unemployment in their history (four times, as compared with once in the older retired). The psychological capacity profiles of the retired were similar to employed persons.

Conclusions Keeping older persons with high psychological capacity levels in working life could be an alternative to forced reintegration of people with chronic participation problems into the competitive labour market. Unemployed persons with chronic health and participation problems might benefit from other social inclusion means.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ One strength is that the study assessed psychological capacity profiles (and not only used symptom scales) which are of great importance in our modern working world.
⇒ The study used an internationally validated International Classification of Functioning Disability and Health (ICF)-based capacity measure, the Mini-ICF-APP-S.
⇒ The survey has been done in a large national representative sample of 2528 persons with personal interviews.
⇒ A limiting aspect is that the survey was cross-sectional and self-rating.
⇒ Another limitation is the national German context. Intercultural comparisons would be of interest.

INTRODUCTION

Meaning of psychological capacities in different employment status and age groups

Beyond the specific cognitive capacities, the so-called soft skills, that is, psychological capacities, have become more and more important in education and work settings.[1–3] Modern working life demands psychological capacities from the employees in nearly all professional fields. Psychological capacities include a broad range, that is, action-associated and social capacities: flexibility, competence, decision-making and judgement, and social skills like contacting others, group and teamwork capacity.[4] These psychological capacities are especially required in service jobs and cooperation-oriented professions. Furthermore, employees are more and more narrowly (computer-)monitored concerning their achievements, and work outcomes are compared due to competition. Increased sick leaves due to misfit of psychological work demands and person capacities can be the consequence.[5]

There are various factors which influence the profile and strength of a persons psychological capacities: genetics and learning, and non-linear developments in different ages or life settings, for example, over the life span decreasing fluid capacities, but increasing problem-solving expertise and knowledge.[6–15] Older aged persons are not globally weaker in their capacities than younger, as may be assumed in stereotypes.[16] Another important

factor influencing capacity profile and impairments is mental health: psychological capacity impairments often result from mental health problems, which are usually chronic over the life span and bring about observable work and life participation problems.[17 18] Especially work-anxiety and embitterment come along with long sick leave durations, which may turn in work disability and loss of employability.[5 19]

Knowledge about capacity (impairment) distribution in different professional groups and age groups is until now scarce, even if there is already ongoing dicussion on age discrimination at work[20] and employability of older persons. People become retired due to state rules for retirement entrance at defined age, for example, 62–68 years of age in countries of the European Commission.[21 22] There are some positive ideas about older workers regarding expertise, knowledge and mentoring functions, but also age discrimination and stereotypical assumptions of older people being slower, and resistant to change or new technologies.[16 20 23] Furthermore, it is known for years that there is increasing shortage of skilled workers in Germany[24] and many European countries. This requires more targeted labour market policies, and more observation-based assumptions on employability of specific groups.

Against this societal background, the aim of this study is to explore the psychological capacity profiles of the general population and selected population subgroups. This may give hints about which groups could be targeted for professional (re)integration or retention. Older people are relevant to stay in active and professional life, in order to apply their knowledge and skills and teach the younger. The need to strengthen intergenerational exchange, age diversity and inclusion at work are continuously important in organisational settings.[25] Furthermore, inactivity in older age may lead to illness states due to loss of capacities which are no longer applied.

In contrast to these needs, there are until now no comparative data of psychological capacity profiles in different professional status groups, that is, employed working people, mini-jobbers, people on voluntary activities or parental and household management, unemployed people and older retired persons. The here reported representative study adds evidence to close this gap.

The Mini-ICF-APP concept of psychological capacities

This representative study is the first study to assess the broad range of psychological capacities in a large national cohort of all age and employment groups (employed, unemployed, volunteer, older retired). We assess the people's psychological capacity profiles. The used *concept of psychological capacities* is an internationally validated approach of 13 psychological core capacities which are commonly necessary in general and professional life.[26–33] The Mini-ICF-APP capacity concept is based on a capacity definition introduced in the *International Classification of Functioning Disability and Health (ICF)* by the WHO.[4] It reflects the environmentally adjusted capacities of the individual to carry out certain activities in a specified domain. The ICF-based Mini-ICF-APP capacity concept comprises a total of 13 psychological capacities, which can be grouped into three broader categories[26 32]:

A. Cognitive and action-oriented capacities: adherence to regulations, planning and structuring of tasks, flexibility and ability to adapt to changes, competency and application of knowledge, ability to make decisions and judgments, proactivity and spontaneous activity, endurance and perseverance.
B. Social capacities: assertiveness, contact with others and small talk, group integration, dyadic or close relations.
C. Basic capacities: mobility, self-care.

Each *capacity* may include *several activities*. For example, the capacity 'adherence to regulations' includes activities such as being on time to meetings and dates, working on a work piece according to specific rules, obeying rules in traffic, and so on.

Until now, there is empirical evidence that psychological capacities appear in different quality over the life span, that is, differently in different age groups, and differently in people with mental disorders and in the general population.[32] Capacities in which people perceived themselves as most competent were mobility, dyadic relationships, group integration, competency, decision-making, adherence to rules and regulations. Endurance and assertiveness were rated more restrained not only by patients with mental disorders, but also by the general population participants.[32]

Representative data on the distribution of these work-relevant psychological capacities in the general population have not been reported yet. To fill in this gap, the present investigation will answer two research questions:

1. Are there differences in the five employment status groups (employed, mini-jobbers, voluntary service, unemployed, older retired) which are relevant for work ability? (eg, Are there differences in education, or mental health?)
2. Which profiles of psychological capacities can be found in different employment status groups (employed, mini-jobbers, voluntary service, unemployed, older retired)?

METHOD

A cross-sectional representative survey with contents according to the research questions has been done throughout the whole German republic from May to July 2019 by personal interviewing. The survey has been conducted by a professional organisation for representative survey throughout Europe.[34] The interviewer was independent from the sampling procedure and random choice of interviewees.

Patient and public involvement

It was not possible to involve patients or the public in the design, or conduct, or reporting of this research.

Participants

Full data for analysis were available from 2528 participants, of which 53.3% were female. Average age of all participants was 48.5 (SD=17.9). 43.7% were married, 37.5% were Protestants, 30.3% Catholics, 2.3% Muslims, 3.3% other religions and 26.6% without religious denomination. 27.3% had finished eight classes at school, 44.5% left school after 10 classes, 12.8% had A-Levels/High school degree with 12–13 completed school years, 2.9% were still at school, 9.9% had a college or university degree. Two thousand thirty participants were in 'official' working age, that is, between 18 and 67 years of life.

Materials and procedure

First, basic sociodemographic and profession-related questions were asked in a personal interview. Professional situation was classified as follows: (1) employed in full time or part time with at least 15 hours per week, or in professional eduction, (2) Mini-jobbers working less than 15 hours per week, (3) presently not working on the general labour market, but being on parental leave, house wife or house man, conducting any voluntary service, (4) retired due to age of 65 years or older, (5) unemployed but in employable age (<65 years). This categorisation was used for comparative analysis of the professional status groups, which is the main question of this research. After that, the Mini-ICF-APP-S questionnaire[32] on perceived own psychological capacities was filled in by the participants additionally as a self-rating.

Mini self-rating for psychological capacities and participation (Mini-ICF-APP-S)

In social medicine work ability assessment, diagnostics of capacities and capacity limitations is done by expert rating. However, given that self-perceived work ability is a strong predictor for future real work ability,[35] important information can also be obtained from capacity self-ratings. A self-rated capacity profile reflects the self-image of a person, may give a hint towards possible aggravation tendencies and provide information which is useful for further therapy planning, capacity training or work adjustment. The *Mini-ICF-APP-S* is a self-rating on psychological capacities.[32] It covers the same 13 capacity dimensions as the original internationally validated and established[27 29 30 33] *observer rating Mini-ICF-APP*. Similar to the observer-rating, the Mini-ICF-APP-S self-rating contains 13 items, each representing a capacity dimension. Descriptions of each capacity dimension are given (online supplemental appendix table A). The rating points are described on a behavioural level, that is, the degree to which the person can (or has problems to) act out capacity-related activities. The self-rating thus allows a bipolar rating from '(0) this is clearly a strength of mine' to '(3) this is somehow possible', '(4) this does not always work' to '(7) I am fully unfit to do this'. This bipolar rating with eight scale points makes possible to describe psychological capacities as relative strength or weakness. The Mini-ICF-APP-S self-rating has been validated in a sample of patients with mental disorders, and a general population sample.[31] The original Mini-ICF-APP has been validated with an established structured *Groningen Social Disability Interview*.[26 36] The capacity assessment has good inter-rater reliabilities between r=0.70–0.90, and has been evaluated and translated in several languages and cultural contextes.[27 29 30 32 33]

Mental health problems and work-relevant symptom load

In order to explore specific mental health problems which are most narrowly associated with work ability problems, embitterment and work-anxiety were assessed. Participants were also asked whether they suffered from a certified and impairing mental disorder. *Embitterment* was assessed with the 19-item *Posttraumatic Embitterment (PTED) Scale*.[37] It starts with the statement 'During recent years, there was a severe and negative life event…,' which is followed by answers such as '…that hurt my feelings and caused considerable embitterment,' '…that triggers feelings of satisfaction when I think that the party responsible has to live through a similar situation,' or '… that caused me to withdraw from friends and social activities.' Ratings shall made for each item on a five-point Likert scale, ranging from 1 = 'not true at all' to 5 = 'extremely true'. The mean score from the PTED scale indicates the overall degree of embitterment. The PTED scale measures dimensional embitterment, that is, it can be used as a screening for the general embitterment load that the person perceives due to one or more stressful life events. The PTED scale can be used in clinical samples as well as in general population samples.[37] The PTED scale can be used for measuring embitterment as a dimensional phenomenon, but not as a tool for the categorical diagnosis of an embitterment disorder. Other studies have also used the PTED scale for measuring the level of embitterment, for example, in general population samples or general clinical samples.[37 38]

Work-anxiety

Work-anxiety was measured with the *Workplace Phobia Scale* (WPS).[39] The WPS[39] is a self-rating scale consisting of 13 items on work-related panic and work-related avoidance behaviour. The WPS's psychometric properties have been tested using a psychosomatic inpatient sample. The split-half reliability was 0.97, Cronbach's a 0.96. The items are rated on a Likert-scale from 0 = 'no agreement' to 4 = 'full agreement'. The mean score is relevant for data analysis. The WPS has been validated using structured diagnostic interviews as clinical criteria.[39 40] The WPS is given to the participants with the title 'Questionnaire on Workplace Problems' and examines 'behavior, thoughts, and feelings which can occur in relation to the workplace'. Items are the same for employed and unemployed persons. The participant shall imagine being at his/her present workplace—or the last work setting in case the person is presently not employed—and answer the items with respect to this work experience. Item examples are 'I feel severely uncomfortable and tense when I think of my workplace.',

'When I imagine to complete a whole working day at this workplace, I get feelings of panic.', 'I had to go on sick leave once or for several times because I could not stand any longer the problems at my workplace.'

Statistical analysis

Data have been analysed with SPSS. Descriptive statistics, and group comparisons (employed, mini-jobbers, voluntary service, older retired, unemployed) by analysis of variance (ANOVA with Bonferroni correction) or χ^2-test have been calculated.

RESULTS

Characteristics of different employment status groups

Unemployed persons were of similar age like employed, mini-jobbers or people on parental leave and volunteers, that is, 40–44 years old (table 1). According to definition, the older retired persons were about 70 years old.

Religious denomination was catholic or protestant in most cases. Half of the people in the unemployed group were without religion. The unemployed group had the highest rate of people without any school leaving certificate (11%). They were three times more often unemployed during their live (M=3.8 times) as compared with the other groups who had on average one unemployment. There were hardly differences in work-anxiety and embitterment rates between the groups who were in any way occupied with activities (E, M, V) or the older retired (R): about 1–7% had such problems. In contrast, embitterment and high work-anxiety was especially salient in the unemployed group (U), with 16% (table 1).

Psychological capacity profiles in different employment status groups

Unemployed were most often and most severely impaired in almost all capacities: in self-mangement skills (adherences to regulations, planning und structuring, flexibility, endurance, proactivity), cognitive capacities (decision-making and judgement, knowledge transfer), social skills (contact, group integration, dyadic relationships) there were 12%–25% severely impaired, with need for regular support by others (table 2). Also the basic capacities (self-care and mobility: 10% and 4%) were significantly more often impaired than in the other groups. The data show that a relevant proportion of unemployed persons in mid age have severe problems in work participation and work-relevant skills.

In contrast, the retired 70 year old had similar capacity levels like the midagers who fulfilled voluntary services or were in mini-jobs. Only 2%–10% of them had relevant capacity impairments. The older retired feel fit especially in decision-making, adherence to rules, competence and planning.

The best capacity profiles (impairments in only 1% to 3.5%) were found in employed persons who worked full time or part time with more than 15 hours per week.

DISCUSSION

This was the first investigation comparing work-relevant psychological capacity profiles of employed people, mini-jobbers, house (wo)men and volunteers, older-age-based retired, and unemployed people from a national representative sample. The main result was that the unemployed were significantly weaker in capacities, and had more often work-ability-conflicting mental-health problems (work-anxiety, embitterment) than all other groups, even the older retired.

In detail, the unemployed had—compared with all other groups—highest rates of work-anxiety and embitterment (16%). They had the worst capacity profile, and most frequently no school degree, most unemployment in their history (even more than the older retired). These data suggest that these work-related problems are regularly not acute, but can be observed over the life span. They present in terms of lower or even no school finishing degree, more frequent unemployments over the life course, which results in unemployment status, and longer sick leave durations at present.

In contrast to the unemployed, the 'older' (on average 70 years old) retired group, who were no longer in the labour market, report profiles of low work-anxiety or embitterment, and comparably good psychological capacities (eg, in decision-making, rule adherence). Psychological capacities in older retired were hardly weaker than employed persons, and similar to mini-jobbers, or volunteers who fulfil other duties in society.

When contrasting these two different groups—unemployed and the (older) retired—the question arises why on the one hand older persons are excluded from the working market due to a certain age (eg, at 67 years), and on the other hand one tries to re-employ midaged persons with chronic participation impairments who struggle on the first labour market.[41]

Whereas specific interventions for work-reintegration after physical injuries, or in specific somatic conditions come along with improved work reintegration and participation outcomes,[42–44] reintegration of long-term unemployed persons often seems hardly possible: studies show that therapeutic interventions have very uncertain effects on re-employement, and do not improve mental health of the job seekers.[45 46] With increasing age, that is, above>50 years, re-employment status and speed become increasingly problematic.[47] It is known that re-employment may be complicated due to discrimination of specific groups; this may concern minorities,[48] but also to a large part older aged persons, due to a negative old age stereotype.[23]

Against these findings of a relevant number of impaired unemployed, in contrast to a number of relatively psychologically fit older persons, the question arises whether continuous integration action into the competitive labour market makes sense for unemployed people with specific work ability and health problems, when at the same time others are sorted out, only due to the fact that they have reached a certain calendaric age?

Table 1 Characteristics of and differences between different professional status groups

Professional status	E Employed (full or part time or in education) n=1645	M Mini-Job <15 hours per week n=73	V Parental leave, house wife/man, voluntary service n=86	R Retired n=620	U Unemployed n=104	ANOVA and χ^2 *p* overall, Post-hoc comparisons with significant differences	All (n=2528)
Age	40.9 (13.9)	44.2 (13.8)	43.5 (15.5)	70.4 (8.1)	44.2 (12.9)	0.000 RvsE,M,V,U	48.5 (17.9)
Sex female	49.3%	84.9%	90.7%	56.6%	44.2%	<0.001	53.3%
Religion						<0.001	
Protestant	35.7%	35.7%	45.8%	43.1%	28.0%		37.5%
Catholic	29.8%	42.9%	30.1%	32.7%	14.0%		30.3%
Muslim	2.6%	4.3%	7.2%	0.3%	4.0%		2.3%
Others	3.4%	5.7%	2.4%	2.5%	5.0%		3.3%
Without	18.6%	11.4%	14.5%	21.4%	49.0%		26.6%
School degree							
No school degree	1.3%	6.8%	7.0%	2.8%	11.5%	<0.001	2.4%
8–10 classes	66.6%	68.5%	75.6%	83.6%	82.7%		71.8%
A-Levels	16.0%	15.1%	8.1%	6.0%	4.8%		12.8%
University	11.6%	8.2%	9.3%	7.6%	0.0%		9.9%
At school	4.3%	1.4%	0.0%	0.0%	0.0%		2.9%
How many times unemployed until now?	0.84 (1.34)	1.12 (1.74)	1.20 (1.57)	0.96 (1.48)	3.87 (3.24)	<0.001 UvsE,M,V,R	1.01 (1.68)
Sick leave weeks in past 12 months	1.28 (2.69)	1.49 (3.32)	1.61 (6.18)	0.41 (3.18)	3.28 (7.90)	<0.001 EvsR,U MvsU VvsR,U RvsE,V,U UvsE,M,V,R	1.17 (3.39)
Workplace Phobic Anxiety (WPS)	0.31 (0.55)	0.61 (0.81)	0.53 (0.86)	0.35 (0.71)	1.09 (1.2)	<0.001 Evs M,V,U MvsE,R,U VvsE,R RvsM,U UvsE,M,V,R	2.3%
% with high work phobic anxiety (2.51–4 on a scale from 0 to 4)	1.1%	2.7%	3.7%	2.6%	16.3%		
Embitterment (PTED)	0.43 (0.78)	0.59 (0.94)	0.63 (1.00)	0.50 (0.88)	1.04 (1.21)	<0.001 UvsE,M,V,R	0.48 (0.85) 3.8%
% with high embitterment (2.51–4 on a scale from 0 to 4)	2.6%	6.8%	5.8%	4.2%	16.3%		

Continued

Table 1 Continued

Professional status	E Employed (full or part time or in education) n=1645	M Mini-Job <15 hours per week n=73	V Parental leave, house wife/man, voluntary service n=86	R Retired n=620	U Unemployed n=104	ANOVA and χ^2 *p* overall, Post-hoc comparisons with significant differences	All (n=2528)

N=2528 people of a German representative sample. Level of significance $p<0.05$, two-sided, no covariates.
ANOVA, analysis of variance; PTED, Posttraumatic Embitterment.

Limitations

Psychological capacity profiles have been assessed by self-ratings in this representative study. Thus, it cannot be concluded how persons would apply their psychological capacities in real-life and real-work settings. Furthermore, there is no standard norm or anchor for self-ratings of capacity levels. Participants give their ratings according to their individual understanding of their life conditions and demands. Thus, their capacity self-rating can be understood as a global attribution of satisfaction with their own psychological capacities. However, although individual anchors and life conditions may influence the ratings, self-ratings are nevertheless of value and validity: the capacity self-ratings were normally distributed, similar to personality traits. Group differences show that people are able to give differentiated report on type and degrees of their psychological capacities. Studies which compare self-ratings and observer-ratings have found that people may report their status as quantitatively stronger or milder, than observers describe them,[49 50] but the quality and ranking (ie, profile) are reported similarly by observer and self-rater.

One of the professional groups was small and heterogeneous in this present investigation, but it might be interesting in further research to have a more differentiated look at the different status groups aggregated here (parental leave, housewife/man, voluntary service). Their common characteristic in this present investigation was that they were presently not in regular wage employment, but nevertheless 'active' with specific duties.

CONCLUSION AND OUTLOOK

The here conducted study provides for the first time representative data on the whole range of work-relevant psychological capacities according to an internationally validated ICF-based capacity concept. Results can be generalised to the adult population in Germany. Retired persons aged about 70 years report similar psychological capacity profiles and levels as compared with employed or otherwise active (household management, volunteers) younger persons. Unemployed persons have most often and strongest psychological capacity and work-participation problems, in present and past, which is a sign for chronicity. Thus, making work settings attractive for fitter older persons and allowing them to remain in the labour market could be an alternative policy as compared with forcing unemployed persons with chronic health and related capacity problems into the competitive labour market. Thereby designing environments and workplaces in health supportive way for people of all ages should be considered in order to make working an attractive option also for older.[51 52] Unemployed younger persons with chronic health problems might benefit more from other social inclusion interventions, such as sustained employment concepts.[53]

Table 2 Self-perceived psychological capacities according to Mini-ICF-APP-S from a German representative sample (n=2528)

Professional status capacities	E Employed (full or part time or in education) n=1645	M Mini-Job<15 hours per week n=73	V Parental leave, house wife/man, voluntary service n=86	R Retired n=620	U Unemployed n=104	ANOVA and X^2 p overall, Post-hoc comparisons with significant differences (Bonferroni corrected)	All (n=2528)
Adherence to rules	1.75 (1.13) 1.8%	1.89 (1.36) 5.5%	1.93 (1.11) 3.5%	2.00 (1.11) 3.1%	3.03 (1.62) 17.5%	<0.001 EvsE,U MvsU VvsU RvsE,U UvsE,M,V,R	1.88 (1.19) 2.9%
Planning and structuring	1.81 (1.18) 2.5%	2.30 (1.33) 6.8%	2.13 (1.11) 7.1%	2.20 (1.19) 4.6%	3.17 (1.46) 19.6%	<0.001 EvsM,R,U MvsE,U VvsU RvsE,U UvsE,M,V,R	1.99 (1.24) 4.0%
Flexibility	1.99 (1.12) 2.4%	2.51 (1.17) 6.8%	2.32 (1.21) 4.7%	2.75 (1.28) 9.0%	3.08 (1.22) 13.6%	<0.001 EvsM,R,U MvsE,U VvsR,U RvsE,V,U UvsE,M,V	2.25 (1.22) 4.7%
Competence	1.74 (1.04) 1.1%	2.33 (1.27) 4.1%	2.36 (1.13) 4.7%	2.35 (1.16) 4.0%	2.98 (1.36) 14.6%	<0.001 EvsM,V,R,U MvsE,U VvsE,U RvsE,U UvsE,M,V,R	1.98 (1.15) 2.6%
Decision-making	1.83 (1.05) 1.5%	2.16 (1.22) 2.7%	2.24 (1.17) 3.5%	2.18 (1.04) 2.1%	2.88 (1.34) 12.6%	<0.001 EvsV,R,U MvsU VvsE,U RvsE,U UvsE,M,V,R	1.98 (1.09) 2.2%
Proactivity	1.99 (1.20) 3.2%	2.41 (1.32) 8.2%	2.29 (1.27) 5.9%	2.67 (1.38) 9.9%	3.06 (1.51) 20.4%	<0.001 EvsR,U MvsU VvsU RvsE,U UvsE,M,V,R	2.23 (1.30) 5.8%
Perseverance	1.91 (1.17) 2.4%	2.48 (1.33) 11.0%	2.44 (1.30) 7.1%	2.49 (1.26) 6.4%	3.40 (1.56) 25.5%	<0.001 EvsM,V,R,U MvsE,U VvsE,U RvsE,U UvsE,M,V,R	2.19 (1.28) 4.7%

Continued

Table 2 Continued

Professional status capacities	E Employed (full or part time or in education) n=1645	M Mini-Job<15 hours per week n=73	V Parental leave, house wife/man, voluntary service n=86	R Retired n=620	U Unemployed n=104	ANOVA and X^2 p overall, Post-hoc comparisons with significant differences (Bonferroni corrected)	All (n=2528)
Assertiveness	2.02 (1.22) 3.5%	2.56 (1.33) 9.6%	2.45 (1.51) 10.6%	2.40 (1.28) 5.9%	2.94 (1.44) 14.6%	<0.001 EvsM,V,R,U MvsE VvsE RvsE,U UvsE,R	2.18 (1.28) 4.9%
Contact	1.92 (1.26) 2.9%	2.29 (1.29) 6.8%	2.23 (1.39) 9.3%	2.32 (1.35) 6.8%	2.69 (1.47) 12.5%	<0.001 EvsR,U RvsE UvsE	2.07 (1.31) 4.6%
Group	1.95 (1.13) 2.7%	2.18 (0.99) 1.4%	2.16 (1.19) 5.8%	2.43 (1.27) 7.0%	2.97 (1.48) 18.3%	<0.001 EvsR,U MvsU VvsU RvsE,U UvsE,M,V,R	2.12 (1.21) 4.4%
Dyadic relations	1.96 (1.20) 2.8%	1.90 (1.38) 6.8%	2.08 (1.37) 7.1%	2.32 (1.17) 5.2%	2.78 (1.55) 15.4%	<0.001 EvsR,U MvsU VvsU RvsE,U UvsE,M,V,R	2.09 (1.24) 4.2%
Self-care	1.80 (1.20) 2.6%	2.12 (1.27) 5.5%	2.01 (1.27) 3.5%	2.10 (1.23) 4.7%	2.70 (1.23) 9.6%	<0.001 EvsR,U MvsU VvsU RvsE,U UvsE,M,V,R	1.93 (1.23) 3.5%
Mobility	1.47 (1.05) 1.0%	1.82 (1.15) 2.7%	1.84 (0.98) 0.0%	2.48 (1.39) 9.8%	2.36 (1.17) 3.8%	<0.001 EvsR,U MvsR,U VvsE,R,U RvsE,M,V UvsE,M,V	1.76 (1.23) 3.3%

Each capacity dimension is rated from 0=This is clearly a strength of mine to 7=I am fully unfit to do this. Means (SD) are reported and percentage of participants who say that this capacity is observably impaired and they need help in doing such activities (rating 5–7 on a scale from 0 to 7). Descriptive analysis with group comparisons, no covatiates.
ANOVA, analysis of variance.

Contributors The author BM formulated the research question, analysed the data, wrote the manuscript, and is guarantor of the study. Data were collected by a professional representative survey institute USUMA GmbH.

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