

# **Factors associated with health and work ability among long-term unemployed individuals**

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## **Abstract**

**Objectives:** We investigated psychosocial and physical factors associated with health and work ability among the long-term unemployed, and their experiences regarding their health and work ability. **Methods:** Data were collected by a questionnaire (n=216), and by interviews (n=20). Survey data was analysed with logistic regression. **Results:** Positive mental health was associated with both health and work ability when examining their relationship with psychosocial factors. In addition, life satisfaction and confidence in finding paid employment were associated with health, and maintaining personal relationships was associated with work ability. When physical functioning variables were added to the regression model, confidence in finding paid employment, physical fitness and good functioning were associated with health. Physical fitness and functioning were associated with work ability. In the interview data, health problems emerged as an obstacle to employment. **Conclusion:** A positive attitude, satisfaction and faith in the future were emphasised in connection with experiences of health. With respect to experiences of work ability, the social dimension, i.e. personal relationships and their maintenance, was emphasised. The significance of good physical fitness in both good health and good work ability is notable. Activities that foster participation and a positive outlook should be offered for the long-term unemployed.

**Keywords:** unemployment, health, work ability, functional capacity

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## 1 Introduction

Health and work ability both decline with prolonged unemployment. After two years of unemployment, a strong decrease in work ability can be witnessed [1–3]. The level of long-term unemployment, i.e. unemployment that has lasted over one year, is lower in Finland than in EU states in general. However, in comparison with other Nordic countries, Finland has the highest rates of long-term unemployment [4]. Among the long-term unemployed there are people who have great difficulties in finding employment. In addition to health issues, they might have deficiencies in general coping as well as professional skills. This is reflected in Lappalainen [3] study, in which a significantly large share of people under the age of 25 experiencing a longer period of unemployment lacked vocational qualifications.

Depression is more prevalent among the long-term unemployed than among people with a shorter period of unemployment [3, 5–6]. Symptoms associated with depression, such as lower self-esteem and a pessimistic outlook, can lead to less active job-seeking and consequently, decrease the chances of finding employment [7]. Having to face constant failure in job-seeking could further decrease self-esteem and satisfaction [6]. Experiences of shame and discrimination are associated with mental health problems, as well as with unemployment [8]. For this reason, special attention should be paid to the situation of long-term unemployed people who have depression symptoms, in order to prevent social exclusion.

Little research has been conducted on health and work ability among the long-term unemployed [7]. In a survey conducted in connection with a health promotion intervention study, Limm et al. [9] found that female gender and high levels of physical activity were associated with perceived good mental health among the long-term unemployed. In addition, symptoms of depression and anxiety were associated with poor perceived health, both physical and mental. Poorer physical health was also predicted by older age and a higher BMI [9]. Levels of physical activity play a significant role in maintaining good work ability [10]. In a systematic literature review, van den Berg et al. [11] found that four out of five studies reported an association between levels of physical activity and work ability. Among long-term unemployed individuals, low levels of physical activity often lead to musculoskeletal conditions and decreased functional capacity [12]. According to another review, morbidity among the long-term unemployed, particularly the risk of developing cardiovascular diseases and the related mortality, were higher than in people who had been unemployed for a shorter period of time. Greater prevalence of alcoholism among the long-term unemployed might be either the cause or consequence of unemployment [6].

Similar to health, the work ability of the long-term unemployed is poorer than that

of employed people or those with a shorter period of unemployment [7, 13]. Work ability is often described as a balance between individual resources and work stressors [14] and no separate work ability model exists to describe work ability in unemployed people. Presumably, good health is a key resource for unemployed people in terms of their work ability [1], but education, skills, values and attitudes also contribute to an individual's perception of his or her work ability. In addition to health problems, perceived work ability decreases with older age [13]. Family and the close community can also influence work ability in a variety of ways [14]. While social support is associated with perceived health [6], studies indicate that being in a relationship has no influence on work ability [7, 15].

One factor that predicts work ability is level of education, with a low educational level or lack of education increasing the risk of long-term unemployment [16]. However, there is evidence also to the contrary, as indicated by the interview study conducted by Szlachta et al. [7]: people who were long-term unemployed and had vocational qualifications reported their work ability to be poorer than unemployed people with no qualifications. This is perhaps explained by psychological distress resulting from not being able to practice one's profession due to lack of paid employment. Worach-Kardas and Kostrzewski [13] found that long-term unemployed over the age of 45 felt they are unable to work in a job that would match their profession, and their experiences of inability with respect to performing unpaid work also increased.

In comparison to people with a shorter period of unemployment, in Worach-Kardas and Kostrzewski [13] study the long-term unemployed experienced more difficulties in maintaining a regular daily routine. They also felt that physical pains limited their lives and had a low level of life satisfaction. In addition, the long-term unemployed in the study reported often feeling negative emotions, such as sadness, apathy and fear. In a study by Chen et al. [5], coping strategies based on self-blame were linked to poorer mental health in unemployed people, whereas problem-focused coping strategies seemed to improve mental health. A Finnish study [17] also found that a large share of long-term unemployed people showed symptoms, such as lack of interest, hopelessness, underestimating one's opportunities, fear and anxiety, that have a deteriorating effect on psychosocial well-being. Many people suffering from such symptoms avoid contacting health services and are thus left without the treatment they would need; this is the case especially with long-term unemployed people suffering from psychological problems [18]. While financial hardships might pose an obstacle to seeking treatment, the awareness of suitable services and the availability of services also plays a significant role. We consider it important to further investigate factors that could improve the health, well-being and employability of the long-term unemployed and decrease their risk of social exclusion.

This study aims to identify factors associated with good health and work ability

among the long-term unemployed and describe the experiences of people who are long-term employed with regard to their health, work ability and functional capacity. Good health and work ability are defined in this study in terms of self-perception and measured with established means. Our research questions were:

Which factors are associated with good health and work ability among the long-term unemployed?

How do the long-term unemployed describe their health, work ability and functional capacity, and their efforts to find employment?

## 2 Methods

### 2.1 Materials

#### 2.1.1 Survey data

Study data was collected within subprojects of the umbrella project PARTY (Improved work ability and functional capacity) running through 2015–2018 and is conducted with ESF funding. Data collection was performed in six municipalities in Southwest Finland during 2016. The PARTY umbrella project and its subprojects are aimed at promoting the employment of the long-term unemployed and those at risk of social exclusion while creating more comprehensive services. The projects develop services, such as assessments of work ability and functional capacity and work and group activities. Individual support and service guidance has been provided in the form of rehabilitative work activities, as part of adult social work or by integrating support and service guidance with employment services. Within the subproject run by the FIOH (Finnish Institute of Occupational Health), development efforts have included, e.g. trainings to encourage participation.

Data for the present study was collected in connection with research carried out within the TTP project. The Abilitator self-assessment method, developed in the project of the FIOH, was used for data collection. The Abilitator is a suitable method for assessing work ability, functional capacity and social participation of unemployed people [19]. The Abilitator questionnaire comprises five sections: general work ability and functional capacity; social functioning; psychological functioning; cognitive functioning; and physical functioning. Within the subprojects, the unemployed people completed either a paper questionnaire or an electronic questionnaire. Questionnaires were completed at the beginning of the project, either independently by the people themselves or based on an interview by a project employee. The self-reported measure allows for increased user participation in the assessment of work ability and functional capacity and the planning of rehabilitation, which lends support to its usage in practical work. In addition, the measure helps to introduce psychosocial background factors influencing work ability into the discussion. The data used in this study was

collected at the start of the subprojects from unemployed people (n=265), using a first version of the Abilitator (1.0). Excluded from the study were people who had been unemployed for less than a year (n=17), people who had never held paid employment status (n=10), people who were not unemployed (n=4) and those who did not respond to the question regarding the duration of their unemployment (n=18). The final data comprised responses from 216 unemployed people.

### **2.1.2 Interview data**

The aim of the focused interviews was to chart the long-term unemployed people's views regarding their health, work ability and functional capacity, and efforts to find employment. A total of 20 interviewees were recruited from group activities organised by the PARTY project and participated in the interviews voluntarily. They were given information on the study and its objectives, after which they gave their written consent for recording the interview. Content analysis was applied to the interview data to create a condensed description that was linked to the survey results. In content analysis, text is analysed and condensed, looking for similarities and differences. The data was coded using the Atlas.ti analysis software. In the first phase, the texts were entered in the Atlas.ti software and then simplified codes were identified. Following this, subcategories were formed by grouping the codes. In the next phase, generic categories were formed, followed by main categories. Table 4 illustrates the formation of subcategories, generic categories and main categories. The analysis was conducted using a data-driven, or inductive, strategy.

### **2.1.3 Ethical considerations**

Individual participants cannot be identified, as the data collected using the Abilitator was anonymised before it was obtained by the FIOH. The data was handled in accordance with the Personal Data Act and data security principles. Each participant had given written consent on the use of the data and they had been informed on the topic. The subprojects were responsible for obtaining consent and for the accumulated personal data register, and they drew up descriptions of personal data files.

## **2.2 Variables**

### *Health*

Health was measured as self-reported health on a scale of 1 (poor) to 5 (good). Values of 4 or higher signified *good* health. The measure of self-reported health is widely used in population studies and has been proven a reliable measure of morbidity and mortality [20].

### *Work ability*

Work ability was measured with a work ability scale, which is the first part of a more extensive Work Ability Index developed by the FIOH [15]. The participants

were asked to rate their current work ability on the scale of 0 (unable to work) to 10, with 10 being the highest rating of work ability. They were asked to rate their work ability against the requirements of their latest job or occupation. Work ability was classified as *good* when the rating given was at least 8 [21]. The work ability score has proven to measure work ability as reliably as the more extensive Work Ability Index and it is associated with sickness absences, health, symptoms and quality of life related to health [22].

### *Psychosocial functioning*

Experiences of depression were measured with two questions: “During the past month, have you often been bothered by feeling down, depressed, or hopeless?” and “During the past month, have you often been bothered by little interest or pleasure in doing things?”. Answering “yes” to even one question is indicative of depression. These two screening questions for depression are widely used in occupational health care and primary health care and have proven suitable for screening depression [23].

Positive mental health was measured with a seven-item measure of mental well-being [24]. The questions in the measure covered feeling optimistic, useful, relaxed, dealing with problems, clearness of thought, feeling close to other people and being able to make decisions during the past two weeks. The answer options were 1 (None of the time), 2 (Rarely), 3 (Some of the time), 4 (Often), 5 (All of the time). The scores for each of the items were summed and then transformed to correspond with the original scale. The categories *None of the time* and *Rarely* were combined into the category *Rarely*. The second category was *Some of the time*, as the categories *Often* and *All of the time* received no responses. Life satisfaction was measured on a five-point Likert scale. The categories *Very satisfied* and *Quite satisfied* were combined into a *Yes* category and the other categories were combined into a *No* category. Life satisfaction is a key indicator of subjective well-being and the one-question measure has proven reliable [25].

Questions regarding relationships with other people were taken from the WHODAS 2.0 (WHO Disability Assessment Schedule) assessment instrument to examine interacting with other people. The participants were asked to evaluate how much difficulty they had, in the past 30 days, in: dealing with people they do not know; maintaining a friendship; getting along with people who are close to them; making new friends. The response scale was from 1 (None) to 5 (Extreme or cannot do). A value of 4 or smaller of the sum variable created signified that maintaining personal relationships was *easy*. WHODAS is an assessment instrument for health and disability that is suitable for adults and has proven validity and accuracy [26].

Loneliness was measured on a five-point scale, and the categories *Never* and *Rarely* were combined into a *No* category and the other response categories were

combined into a *Yes* category. One question regarding loneliness is a reasonable measure of the experience of loneliness, which is closely linked to social functioning and interaction [27]. The question on whether the participants have someone they are close to was used to chart if they have someone they can openly discuss personal matters and problems with. The variable values were recoded into *Yes* and *No*, with the categories *No* and *Cannot say* combined into the category *No*. Participation in the activities of some club, organisation, hobby group or a religious or spiritual community either *actively* or *occasionally* was considered participation in group activities. Receiving help was measured as availability of practical help when required; the categories *Very often* and *Quite often* were combined into the category *Yes*. Close personal relationships, active participation and availability of help are key components of an individual's social capital, which has been shown to be strongly associated with health [28]. Confidence in finding some kind of paid employment was measured on a five-point scale, and the categories *Yes* and *Quite likely* were combined into the category *Yes*.

#### *Functional capacity*

Ability to perform daily tasks and activities, i.e. functional capacity, was measured with a new measure developed for the Abilitator. Functional capacity was measured on a scale from 1 (able to perform poorly) to 10 (able to perform very well). Functional capacity was classified as *good* when the score was at least 7. Good functional capacity influences overall well-being and illustrates an individual's ability to take care of oneself and one's household, run errands and perform everyday tasks at home, within hobbies or studies, or at work.

#### *Physical functioning*

The response options for the question regarding long-term disease, defect or disability were *yes* or *no*. This question did not specify the nature of the illness, so it could also be a mental illness. Physical fitness was classified as good when the rating was 5 (*good*) or 4 (*quite good*) on the scale 1 (*poor*) to 5.

### **2.3 Statistical methods**

Percentages and frequencies were used to describe the data. Dependencies among the independent variables were examined using Pearson's correlation coefficient. There was a strong positive correlation ( $r=0.70$ ) between the variables relationship status and household type. Those who were in a relationship mostly reported they are living in a household together with one or more people. Despite the strong correlation between these variables, they were considered suitable for regression analysis. There was a strong correlation between the dependent variables, health and work ability ( $r=0.80$ ).

Binary logistic regression analysis was used to model the variables' combined effect on the dependent variables. First, we examined the association of each independent variable with health and work ability individually (Model 0), after which all psychosocial variables were added to the model using the Enter method,

i.e. adding all variables in a single step (Model 1). Finally, we added the variables of functional capacity and physical functioning (Model 2). In models 1 and 2, we also adjusted for age, gender and duration of unemployment. The associations are expressed as odds ratios with 95% confidence intervals (CI). The significance level used for all tests was  $p < 0.05$ . Nagelkerke's  $R^2$  was used to indicate the models' power of explanation. Statistical analysis was performed using the SPSS 24 software.

### 3 Results

#### 3.1 Survey data

Slightly under a half of the participants ( $n=216$ ) were women ( $n=100$ ). The average age of participants was 45.3 years (sd 11.0) and their ages ranged from 19 to 62 years. Slightly under a third of the participants were in a relationship, slightly under a quarter were divorced or widowed, and slightly less than a half were unmarried. The most common duration of unemployment was 5 to 10 years (34.7%). Unemployment had lasted for 1–2 years for 18.5% of the participants, 3–4 years for 28.2% and over ten years for 18.5% of the participants. Among the participants, 23.1% had no post-primary education, 9.1% had upper secondary education, 50% had vocational qualifications, 7% had a higher education degree from either a university or a university of applied sciences, and 6.9% had not finished their studies. In addition, 22.7% had attended preparatory vocational training or vocational courses. The average work ability score was 5.4 (sd 2.7) and the average self-rated health was 3.0 (sd 1.1). Slightly under a third of the unemployed participants perceived their health to be good (32.9%) and slightly over a quarter perceived their work ability to be good (27.8%). Psychosocial and physical factors relating to the participants are presented in Table 1 (Table 1.)

Associations between psychosocial functioning, functional capacity, and physical functioning are presented in Table 2. Relationship status, household type, loneliness, having someone close and participation in group activities were not associated with good self-rated health (Model 0). Good physical fitness, good functional capacity and confidence in finding employment had the strongest associations with good health. When all psychosocial variables were added to the model in a single step (Model 1), the association between confidence in finding employment and good health remained significant. In addition, positive mental health and life satisfaction were associated with good self-rated health. Model 2 examines functional capacity and physical functioning, alongside psychosocial functioning. Good physical fitness was strongly associated with good health, and a positive association was found also between good functional capacity and confidence in finding employment. Psychosocial variables explained 49.4% of the variance in good health. With the variables of functional capacity and physical functioning included, the model explained 71.2% of variance in good health (Table 2).

Table 1: Description of psychosocial and physical factors.

	% (n)
<i>Relationship status</i> (n <sup>1</sup> =216)	
In a relationship	32.4 (70)
Not in a relationship	67.6 (146)
<i>Household type</i> (n <sup>1</sup> =213)	
Not living alone	46.9 (100)
Living alone	53.1 (113)
<i>Depression</i> (n <sup>1</sup> =207)	
No	47.8 (99)
Yes	52.2 (108)
<i>Positive mental health</i> (n <sup>1</sup> =213)	
Occasionally	37.6 (80)
Rarely	62.4 (133)
<i>Life satisfaction</i> (n <sup>1</sup> =215)	
Yes	47.9 (103)
No	52.1 (112)
<i>Maintaining personal relationships</i> (n <sup>1</sup> =203)	
Easy	57.1 (116)
Difficult	42.9 (87)
<i>Loneliness</i> (n <sup>1</sup> =216)	
No	50.9 (110)
Yes	49.1 (106)
<i>Having someone close</i> (n <sup>1</sup> =215)	
Yes	85.1 (183)
No	14.9 (32)
<i>Participation in group activities</i> (n <sup>1</sup> =213)	
Yes	29.6 (63)
No	70.4 (150)
<i>Receiving help</i> (n <sup>1</sup> =214)	
Often	70.6 (151)
Rarely	29.4 (63)
<i>Confidence in finding paid employment</i> (n <sup>1</sup> =211)	
Confident	20.9 (44)
Not confident	79.1 (167)
<i>Functional capacity</i> (n <sup>1</sup> =216)	
Good	39.8 (86)
Limited	60.2 (130)
<i>Long-term illness</i> (n <sup>1</sup> =215)	
No	23.3 (50)
Yes	76.7 (165)
<i>Physical fitness</i> (n <sup>1</sup> =262)	
Good	30.1 (65)
Poor	69.9 (151)

<sup>1</sup> The number of respondents varies by variable.

Table 2: Association of the factors with good health among the long-term unemployed, Odds Ratio (OR) and 95% confidence intervals (CI).

	Model 0 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)
<i>Relationship status</i>			
In a relationship	0.67 (0.36–1.26)	0.47 (0.12–1.87)	0.88 (0.14–5.52)
Not in a relationship	1	1	1
<i>Household type</i>			
Not living alone	0.82 (0.46–1.45)	0.64 (0.18–2.27)	0.29 (0.05–1.82)
Living alone	1	1	1
<i>Depression</i>			
No	3.90 (2.10–7.24)***	1.17 (0.42–3.29)	0.70 (0.19–2.65)
Yes	1	1	1
<i>Positive mental health</i>			
Occasionally	4.36 (2.38–7.99)***	4.49 (1.64–12.30)**	2.95 (0.78–11.13)
Rarely	1	1	1
<i>Life satisfaction</i>			
Yes	6.16 (3.23–11.74)***	4.09 (1.47–11.35)**	2.27 (0.61–8.43)
No	1	1	1
<i>Maintaining personal relationships</i>			
Easy	1.90 (1.04–3.47)*	1.15 (0.41–3.27)	0.26 (0.06–1.14)
Difficult	1	1	1
<i>Loneliness</i>			
No	1.51 (0.85–2.67)	0.73 (0.29–1.87)	1.28 (0.40–4.17)
Yes	1	1	1
<i>Having someone close</i>			
Yes	1.28 (0.56–2.93)	1.43 (0.37–5.57)	5.10 (0.82–31.63)
No	1	1	1
<i>Participation in group activities</i>			
Yes	1.21 (0.65–2.26)	1.53 (0.61–3.83)	1.83 (0.55–6.05)
No	1	1	1
<i>Receiving help</i>			
Often	3.03 (1.46–6.28)**	1.23 (0.37–4.14)	0.71 (0.13–3.91)
Rarely	1	1	1
<i>Confidence in finding paid employment</i>			
Confident	7.57 (3.62–15.85)***	5.98 (1.91–18.70)**	7.13 (1.48–34.30)*
Not confident	1	1	1
<i>Functional capacity</i>			
Good	11.22 (5.73–21.96)***		8.14 (2.26–29.37)**
Limited	1		1
<i>Long-term illness</i>			
No	5.10 (2.60–9.99)***		3.49 (0.89–13.60)
Yes	1		1
<i>Physical fitness</i>			
Good	23.86 (11.21–50.80)***		16.21 (4.29–61.27)***
Poor	1		1

Model 0 = Association between the independent variable and work ability

Model 1 = Combined effect of the independent variables, adjusting for age, gender, educational background and duration of unemployment

Model 2 = Model 1 + long-term illness, functional capacity and physical fitness

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 3: Association of the factors with good work ability among the long-term unemployed, Odds Ratio (OR) and 95% confidence interval (CI).

	Model 0 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)
<i>Relationship status</i>			
In a relationship	0.95 (0.50–1.81)	0.36 (0.09–1.40)	0.44 (0.09–2.14)
Not in a relationship	1	1	1
<i>Household type</i>			
Not living alone	1.19 (0.65–2.16)	2.09 (0.61–7.19)	2.01 (0.49–8.35)
Living alone	1	1	1
<i>Depression</i>			
No	4.96 (2.53–9.73)***	1.67 (0.59–4.69)	1.18 (0.33–4.27)
Yes	1	1	1
<i>Positive mental health</i>			
Occasionally	5.07 (2.68–9.62)***	2.70 (1.04–6.98)*	1.58 (0.50–5.02)
Rarely	1	1	1
<i>Life satisfaction</i>			
Yes	5.65 (2.86–11.17)***	2.59 (0.92–7.32)	1.08 (0.29–4.03)
No	1	1	1
<i>Maintaining personal relationships</i>			
Easy	3.43 (1.73–6.78)***	4.72 (1.63–13.71)**	2.66 (0.75–9.38)
Difficult	1	1	1
<i>Loneliness</i>			
No	1.66 (0.91–3.04)	0.52 (0.21–1.32)	0.62 (0.21–1.88)
Yes	1	1	1
<i>Having someone close</i>			
Yes	1.19 (0.50–2.82)	1.17 (0.32–4.30)	2.91 (0.57–15.02)
No	1	1	1
<i>Participation in group activities</i>			
Yes	1.02 (0.52–1.97)	0.92 (0.38–2.26)	1.06 (0.38–2.99)
No	1	1	1
<i>Receiving help</i>			
Often	2.97 (1.36–6.50)**	0.65 (0.20–2.08)	0.32 (0.07–1.41)
Rarely	1	1	1
<i>Confidence in finding paid employment</i>			
Confident	4.96 (2.46–10.23)***	2.74 (1.00–7.55)	1.81 (0.52–6.24)
Not confident	1	1	1
<i>Functional capacity</i>			
Good	16.67 (7.68–36.16)***		10.78 (3.32–34.98)***
Limited	1		1
<i>Long-term illness</i>			
No	3.71 (1.90–7.25)***		1.10 (0.32–3.75)
Yes	1		1
<i>Physical fitness</i>			
Good	15.41 (7.50–31.66)***		6.47 (2.04–20.54)**
Poor	1		1

Model 0 = Association between the independent variable and work ability

Model 1 = Combined effect of the independent variables, adjusting for age, gender, educational background and duration of unemployment

Model 2 = Model 1 + long-term illness, functional capacity and physical fitness

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

### 3.2 Interview data

Results of the interview data analysis are presented with a view to answering the present study's aims, i.e. based on the interviewees' views regarding their health and work ability. The interviewees' age ranged from 20 to 61 years and eight of them were men. Among the interviewees, 11 people lived alone, six were married or in a common-law relationship, two lived with their families and for one person, no information on background was given.

The interviewees brought up various health-related factors that impacted their work ability. Among such factors were, e.g. physical illnesses, depression and excessive use of alcohol. One of the interviewees was in the process of applying for a pension. Physical illnesses mentioned include rheumatism, musculoskeletal disorders, asthma, chronic obstructive pulmonary disease and hypertension. Especially the young unemployed interviewees suffered from depression. The two quotes below describe the young interviewees' experiences of prolonged unemployment.

*"My own work, this depression has, which has caused that, this began when I was in construction. It's more my own health, which has had a big influence" [female, 25]*

*"Well, I see clear reasons too, first that it has been... the past years have been a bit tough, so, it has affected my mental health a bit and that has affected applying and otherwise everything that... managing overall, somehow independently, and I can manage but I, I can't move on there, so. It needs some work" [male, 24]*

Despite the restrictions posed by their physical health, some of the interviewees were very hopeful and motivated with respect to finding a job. A few interviewees had a clear plan for finding employment. However, some of the older interviewees in particular viewed return to work unrealistic due to their health restrictions. Likewise, two young people suffering from depression stated their goal was to manage one day at a time, and finding employment or studying was not relevant for them at the moment. One of the interviewees brought up suspicions indicating that antidepressant medication could be an obstacle to getting a job.

Work try-outs or wage subsidies had not been of help in finding long-term employment, but nearly all interviewees felt that participation in rehabilitative work activities was a positive experience. Such activities gave them a daily routine, social contacts and something to do, and the interviewees felt it had a positive impact on their health and well-being.

Table 4. An example of the formation of subcategories, generic categories and main categories.

Subcategory	Generic category	Main category
Alcohol	Health	Views on health, work ability and functional capacity
Medication		
Depression		
Physical illnesses		
Developmental disorder		
Pension		
Rehabilitation	Thoughts on one’s own work ability and functional capacity	
Thoughts on work ability and functional capacity		
Participation		
Wage subsidy	Efforts to find employment	
Work try-out		
Rehabilitative work activities		
Job seeking		
Health		
Motivation		
Commute		

## 4 Discussion

### 4.1 Discussion of results

In this study, the health and work ability of people who were long-term unemployed was investigated, along with factors and experiences associated with their health and work ability. The main result of the study is that perceived good functional capacity and good physical fitness were strongly associated with both good health and good work ability, when taking widely into account factors related to psychological and social functioning. In addition to factors mentioned above, confidence in finding paid employment was associated with good health but not with good work ability among the long-term unemployed, which was a slightly surprising finding. Some of the interviewees also emphasised their hopefulness and motivation to find a job.

Over a third of the participants perceived their mental health to be positive only occasionally, on average, and the majority reported they rarely feel positive. Positivity, encompassing, e.g. hopefulness, experience of being useful and

relaxedness, was little felt among the long-term unemployed in the study, but such experiences were associated with both good health and good work ability. When associations were examined for the psychosocial factors alone, it was found that confidence in finding employment was associated only with health, in addition to positivity. Four out of five participants did not believe they would find any, including unskilled, work. Similar results have been obtained in previous studies, indicating that the long-term unemployed often experience negativity, anxiety and hopelessness [7, 13].

Life satisfaction was also significantly associated with health. In this study, over a half of participants reported that they are not satisfied with their lives. The results are supported by a previous study, according to which life satisfaction among the long-term unemployed was lower than among those who had been unemployed for a short period of time [29]. Life satisfaction is a key indicator of subjective well-being, and a study based on extensive European data found that unemployment significantly decreases life satisfaction [30].

While factors associated with good health and good work ability were mainly the same, some differences were found. When examining factors explaining good health, the most substantial factors were those characterised by positivity: positive mental health, life satisfaction and confidence in finding employment. It seems that good work ability, on the other hand, is supported by the social dimension, i.e. the ability to maintain personal relationships. Job seeking is increasingly based on networks, and unemployed people who perceive themselves as socially incompetent might view their lack of networks as contributing to poorer job seeking opportunities, and consequently, poorer work ability. As work itself might involve handling problematic relationships, socially withdrawn unemployed people might be unwilling to apply for work due to the related social obligations. On the other hand, the interview data revealed that rehabilitative work activities are considered good because they offer more social contacts, even if the participation in such activities would not lead to permanent employment. Interestingly, experienced loneliness was not associated with health or work ability, even though half of the participants reported feelings of loneliness. Several studies have nevertheless found loneliness to have a negative impact on health [31].

When examining factors associated with health and work ability as a whole, psychosocial factors are of less importance than good functional capacity and physical fitness. It is notable that long-term illnesses were not associated with perceived health and work ability in the survey data, even though in the interview data several interviewees emphasised the restrictions posed by long-term illnesses. Many unemployed people with a long-term illness would be fit for work if they received proper treatment for their illness and possible restrictions would be taken into account in outlining their duties at work. A comprehensive work ability

assessment and the unemployed person's own opinion on his or her work ability is more important than an illness- or diagnosis-centred approach.

Work ability assessments should increasingly focus on remaining work ability and look for employment opportunities beyond the unemployed person's former line of work or occupation. The results of this study probably reflect the nature of the participants' occupations and previous jobs, characterised by physical strain, which leads to an emphasis on physical functioning in their perceptions of their work ability. While occupational data was not available, it can be deduced that the participants are likely to have been working in physically straining jobs requiring only a low level of education, given that a quarter of the participants had no post-primary education and the overall level of education was low.

Finally, the importance of good physical fitness in maintaining and promoting health and work ability cannot be underestimated. Studies conducted on working populations support the view that physical activity plays a role in perceived good work ability, also among the unemployed [10]. Exercise has a positive impact on mood and sleep and it can increase participation and the number of social contacts while improving time management and offering experiences of success. In addition to improved physical health and positive mental health, taking responsibility for one's own health might boost unemployed people's self-esteem and lower their threshold to employment [13].

#### **4.2 Reliability of the study**

The study used validated measures that belong to the broader Abilitator method of self-evaluation and have proven reliability. Our model explained 71.2% of variance in good health and 61.7% of variance in good work ability among the long-term unemployed. The models have good explanatory power, thus providing a good fit to the data. The interview data enriched the survey data. The cross-sectional design of this study can be considered a limitation, as it does not permit for establishment of causation. Collection of data was performed in a geographically small area, which poses limitations with respect to the generalisability of the results. Not every participant answered all questions, so the analyses were performed using the information available.

#### **4.3 Conclusions and recommendations**

Good health among the long-term unemployed was characterised by satisfaction with life, positivity and an optimistic outlook about the future. Maintaining good work ability was linked to factors related to social functioning, personal relationships and the ability to maintain relationships. However, functional capacity, i.e. managing daily activities and tasks, and good physical fitness appeared to be more important than the psychosocial dimensions. In order to promote health and work ability, the long-term unemployed should be offered opportunities for social participation. An intervention study should be conducted

to investigate the effects of increased physical activity and exercise on health and work ability among the long-term unemployed.

When assessing the work ability of unemployed people, more emphasis should be placed on their own perceptions of their work ability, as well as on their remaining work ability, instead of focusing on restrictions posed by illnesses. The effect of many long-term illnesses on work ability could be cancelled out by providing more efficient health services to unemployed people and increasing the rates of seeking treatment. Perceived good work ability is of vital importance in the efforts to find employment. Therefore, more focus should be placed on finding employment based on existing skills and remaining work ability.

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