

Mental Health and Coping in Daily Life – Survey with Adults in Western Finland

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ABSTRACT

The purpose of this quantitative survey was to report data on adult respondents' self-rated mental health and coping in a region in the west of Finland. The study is part of a larger research project on health and health-related choices, thinking and behaviour patterns. Questionnaires were sent by post to people picked through random sampling from the Digital and Population Data Register. The respondents could choose to reply by post or using an online survey tool. The data were analyzed using IBM SPSS Statistics 29 software. The number of respondents was 461 and the response rate was 23.1%. The perceived mental wellbeing was better in the oldest age group, compared to the youngest age group. The younger respondents more commonly lived with depression, anxiety or other mental health problem. Single alone-living people rated their mental wellbeing as lower compared to the older or married/cohabiting respondents. Higher education was associated with better experienced mental health.

Keywords: coping, mental health, sense of coherence, survey.

INTRODUCTION

Mental health is described by the World Health Organization as a continuum experienced differently across individuals. Mental health or well-being allows people realize their potential, learn, work, cope with stress, and contribute to their community (WHO, 2022). The ability to maintain mutually satisfying relationships is an important aspect of mental health (WHO, 2001). Subjective wellbeing has been conceptualized as an individual's subjective experience regarding their life. The cognitive component of subjective wellbeing refers to the individual's assessment of their life or life satisfaction, while the affective component involves feelings of pleasure and displeasure (Diener & Lucas, 1999).

The terms positive mental health and mental wellbeing are frequently used interchangeably (Tennant et al., 2007) to refer to something that is positive and more than absence of mental problems, as pointed out by Tamminen et al. (2019). Positive mental health is conceived as a

construct that includes both hedonic elements, such as happiness, pleasure and life satisfaction, and eudaimonic elements, or self-realisation and functioning as a citizen (Keyes & Simoes, 2012; Stewart-Brown et al., 2015).

Summing up research results, the Finnish Institute for Health and Welfare states that concepts used to refer to positive mental health have the following points in common: people's mental resources; their opportunities to influence their lives; optimism and sense of being in control over their lives; satisfactory social relationships, and positive self-image and attitude to their personal development possibilities (Finnish Institute for Health and Welfare, 2023). It is worth noting that a mental health diagnosis does not exclude mental wellbeing and lack of diagnosis does not exclude lack of mental wellbeing (Faculty of Public Health and Mental Health Foundation, 2016). Despite a diagnosis, an individual always avails of some level of health and resources that can be utilized (Langeland & Forbeck Vinje, 2022).

Positive mental health has been found to be associated with physical health, social functioning, better quality of life, academic achievement and positive health behaviour. (Keyes & Simoes, 2012; Suldo & Shaffer, 2008; Finnish Institute for Health and Welfare, 2023). The Warwick-Edinburgh Mental Wellbeing Scale was developed to measure mental wellbeing focusing only on positive aspects of mental health. The scale includes both affective-emotional aspects, cognitive-evaluative dimensions and psychological functioning. Both hedonic and eudaimonic elements are covered (Tennant et al., 2007). The use of this well validated scale has increased steadily over the years. It has been used to measure important attributes of public health and to evaluate diverse interventions (Shah et al., 2017). Further concepts that represent thoughts, behaviours, orientations and abilities that have been linked to fostering mental health and adapting to difficult life situations involve coping, resilience, emotional intelligence and sense of coherence.

Coping and resilience are related constructs. Coping refers to behavioral, cognitive, and emotional efforts or strategies to handle and manage stressful events or negative psychological and physical outcomes (Lazarus and Folkman 1984; Folkman & Moskowitz, 2004), whereas resilience has been defined as adaptive capacity to recover from stressful situations in the face of adversity (Steinhardt & Dolbier, 2008). To quote the American Psychology Association, resilience is *"the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands"* (American Psychology Association, 2018). Coping strategies and the way of viewing and engaging with the world contribute to how well the adaptation process proceeds. Resilience has been seen either as an inherent personality trait or as a dynamic process on a continuum between resilience and vulnerability (Henshall et al, 2020). According to the American Psychology Association (2018), psychological research has shown that resources and skills associated with resilience can be cultivated and practiced.

Emotional intelligence (EI) refers to being attentive to one's own and other people's feelings and to being able to regulate one's emotions and control one's actions effectively. (Hart et al., 2014). It has been proposed that at the highest level, EI involves conscious, reflective management of emotions (Salovey, Brackett, & Mayer, 2004). Similar to resilience, emotional

intelligence has been conceptualized as an ability, as by Salovey, Brackett and Mayer (2004) or as a trait, as by Bar-On (2006). Mixed models include both personality traits and skills (Vergera et al., 2015). EI Research has provided evidence of an association between EI and physical and psychological well-being (Cejudo et al., 2018). According to Vergera et al., (2015), greater trait EI has been found to improve satisfaction with life and positive affect, whereas ability EI predicts subjective wellbeing. Furthermore, EI and social competence may be related to lower psychological distress, and emotional and social skills can help develop resilience (Bunce et al., 2019).

Antonovsky's (1979; 1985; 1987; 1990) well-known theory also provides a useful approach to mental health. The individuals' sense of coherence –how they see reality in terms of comprehensibility, manageability and meaningfulness – can improve their mental health, coping and wellbeing. Comprehensibility is the cognitive dimension, manageability the behavioural and meaningfulness the motivational, possibly the most crucial dimension of the sense of coherence (Antonovsky, 1990). A strong sense of coherence has been found to be associated with better experienced health (Eriksson & Lindström, 2006) and quality of life (Eriksson & Lindström, 2007). A strong sense of coherence is associated with optimism and fearlessness and can protect the individual from anxiety and depression (Eriksson & Lindström 2006; 2007). Antonovsky saw mental health as a continuum from unconscious defence mechanisms towards conscious coping and from exploitation of other people towards reciprocal interaction (Antonovsky, 1985).

Social support is an important resource when the salutogenetic approach is applied to the promotion of mental health (Langeland & Vinje, 2022). Loneliness, in contrast, has been found to be associated with poor subjective well-being (Matthews et al., 2019; Hsu, 2020; Shankar et al., 2015) and when prolonged, with physical and psychological health problems (Van Dulmen & Goossens 2013, Cacioppo et al. 2015). The need for social support increases in times of high vulnerability, such as the COVID-19 pandemic, which created an environment in which many determinants of poor mental health outcomes were exacerbated (Daly et al., 2020; Mehrabadi et al., 2024). It has been proposed that interventions targeting unpartnered individuals could be planned to promote social support resilience (Greenwood-Hickman et al., 2024).

Several extensive mental health surveys have been conducted using the Warwick-Edinburgh Mental Wellbeing Scale or WEMWBS. The scale was used, for example, in Denmark, to examine its psychometric properties and to compare mental wellbeing scores with three other European settings. The highest scores were reported for Catalonia in Spain, which reached the mean of 58.1 on a scale from 14 to 70, followed by Denmark, Iceland, and England (mean 49.8). Men reported slightly higher mental well-being scores than women in all four settings. The scores increased with age in northern countries but fell with age in Catalonia. (Koushede et al., 2019). According to later research from Tennant et al. (2007), general population samples in the United Kingdom have produced a mean score of 51, with a standard deviation of 7.

A population-based study in Denmark assessed the mental wellbeing of adults using the Warwick-Edinburgh Mental Wellbeing Scale. The study found an association between lower a socioeconomic position and an increased risk of low mental-wellbeing and common mental

disorders. Recreational activities, social participation and support, on the other hand, were found to reduce the risk (Santini et al., 2020). A longitudinal study in Denmark examined the population's mental wellbeing using the SWEMWBS in 2019 and 2020, before and during the COVID-19 pandemic. A significant decrease in the people's mental wellbeing was observed, especially among persons without depression or chronic disease and among higher educated individuals (Thygesen et al., 2021). An example of studies conducted in Finland is FinSote 2019, a national survey of the Finnish population aged 15 and over using the short version of the Edinburgh Mental Wellbeing Scale (SWEMWBS). The results showed highest results for retired respondents (24.6 on a scale from 7 to 35) and for respondents in working life (24.4). Higher rates were detected in working-age women compared to working-age men. Living alone decreased perceived mental wellbeing, whereas living with a spouse or partner and higher education increased mental wellbeing (Hedman et al., 2021). For comparison, the rates for SWEMWBS were 22.9 for the United Kingdom and 26.4 for Denmark in the year 2016 (Koushede et al., 2019). It has been stated that the shorter version of the scale can be used to distinguish mental wellbeing between groups, but it is not equally sensitive to gender differences (Ng Fat et al., 2017). Another study was carried out in Lapland, the northernmost part of Finland characterized by long distances and thus fewer social contacts, and long-lasting darkness during the polar night. Again, respondents living alone, especially men, experienced less high positive mental health compared to those living with someone, and old age seemed to predict higher levels of positive mental health (Solin et al., 2019).

In this study, the aim was to produce scientific understanding of experienced mental health of the people in one region in western Finland. The setting is a post-pandemic country, whose people have been affected by an atmosphere of economic insecurity and the war in the Ukraine. It has been estimated that in Finland, 20-25% of the population face a mental health problem within a year, and one in five experiences depression during their life (Mieli Mental Health Finland, 2024). In 2023, more than 100 000 Finns were on prolonged sick leave due to mental health problems. Anxiety is the most common mental health disorder in people receiving sickness allowance, followed by depression (Kela Social Security Institution, 2024).

The study is part of a larger research project, whose purpose was to report data on respondents' self-rated health and wellbeing and health-related choices, thinking and behaviour patterns. The results can be used to develop interventions to support the health and wellbeing of the population in western Finland.

In this study, the research questions were:

1. How did the respondents rate their mental health and coping?
2. How were respondents' age, sex, marital status and educational background associated with their self-rated mental health?
3. How did the respondents rate the effect of emotional problems on their daily life?

MATERIALS AND METHODS

This is a quantitative survey with 461 adults in the region called South Ostrobothnia in the west of Finland. The results are based on a statistical analysis of the participants' responses to structured questions.

Data Collection

The survey was conducted in March and April 2024 in collaboration between Seinäjoki University of Applied Sciences, the research units of Vaasa and Turku Universities and South Ostrobothnia Wellbeing Services County. The data involves a random sample of 2000, picked from the Digital and Population Data Register concerning the region of South Ostrobothnia. In a country of nearly 5.6 million people, the region has a population of over 190,000 living in 18 municipalities, with the largest city being Seinäjoki with a population of over 66,000. Over 57% of the population are aged 15–64 and there is an equal number of women and men. (Regional Council of South Ostrobothnia, 2025).

The survey was sent by post at the end of March 2024. In the cover letter, the respondents were also offered an online survey alternative called Webropol. The number of responses by the deadline was 461 (postal 403; online 58). The response rate was 23.1 %. All responses were saved in the electronic Webropol database. This article reports the results on the respondents' mental wellbeing. The other sections in the 12-page questionnaire covered respondents' background; health status; health behaviour; nutrition; use of alcohol and tobacco; body experience; nutritional knowledge; food-related lifestyle; experienced ease of maintaining a healthy lifestyle; health-related meanings; health literacy, and nature relationship.

Variables and Measures

The following two measures were used to assess mental health:

- **WEMWBS.** The respondents assessed their mental health and daily coping using the Warwick-Edinburgh Mental Wellbeing Scale or WEMWBS (Tennant et al., 2007). The WEMWBS consists of 14 positively worded items, with the scoring ranging from 1 (“none of the time”) to 5 (“all of the time”). The total score is obtained by summing the score for each of the 14 items, so the total score is 14–70. Cronbach’s α in the study sample was 0.94.
- **The SF-36 Measurement model** (Ware et al., 1993). The SF-36 includes 36 both positively and negatively worded items, of which this article discusses the results for 14 questions dealing with vitality, mental wellbeing, social functioning and role limitations due to emotional problems. In this model, **vitality and mental health** are addressed by 9 questions on how respondents have felt and “how things have been” with them during the past 4 weeks. A 6-step response scale was used where 1=All of the time and 6=A little of the time. In this report, the data concerning the 9 variables were condensed into a single sum variable, based on a factor analysis where only one definite latent variable was found behind the variables. In further analyses, the sum variable was the factor scores obtained from the factor analysis.
- **Role limitations due to emotional problems** were addressed as follows: Respondents assessed whether, due to emotional problems, they had had the following problems with work or other regular activities during the past 4 weeks: cut down time, accomplished less, or not as careful as usual. Each question had 2 answer options, either 1=Yes or 2=No.
- **Social Functioning.** There were two separate questions in the data on social functioning. The respondents assessed to what extent (5-step response scale, where

1=Not at all and 5=Extremely) and the other how much of the time (5-step response scale, where 1=All of the time and 5=None of the time) their physical health or emotional problems had interfered with their usual social activities (visiting with friends, relatives, etc.).

In addition, demographic variables sex, age, marital status and education were measured. This article first reports the results on the respondents' self-rated mental wellbeing based on the Warwick-Edinburgh Mental Wellbeing Scale (Tennant et al., 2007) and on part of the RAND 36-Item Short Form Health Survey SF-36 (Ware et al., 1993). The Warwick-Edinburgh Mental Wellbeing Scale consists of 14 positively worded items, for example "I have been feeling optimistic about the future". The 5 response categories (none of the time, rarely, some of the time, often, all the time) are summed to provide a single score (Tennant et al., 2007). The SF-36 includes both positively and negatively worded items on vitality and mental health, with 5 response categories (Ware et al., 1993). The questionnaire consisted of 76 questions. The respondents assessed their mental health and daily coping using the Warwick-Edinburgh Mental Wellbeing Scales and five further Likert questions. Secondly, the article reports the self-rated effect of emotional problems on the respondents' daily life, based on the SF-36 Measurement model (Ware et al., 1993). The report includes significant differences detected between respondents by age, sex, marital status and educational background. Data on the respondents' living arrangements and self-reported illnesses are also included in the report.

Data Analysis

Statistical research data was analyzed using IBM SPSS Statistics 29 software. Descriptive statistics (means and standard deviations for continuous variables and percentages for categorical variables) were computed for variables. Factorial analysis was also used to summarize the information in the questions. The Chi-square test was used for categorical variables and Analyses of Variance for continuous variables to examine the statistical significance of differences between groups of demographic variables. Tukey test was used for post hoc tests. Microsoft Office Excel was used to create tables. Frequency and percentage data as well as cross tabulation are used to describe the results. The smaller the statistical significance, the smaller the likelihood that a difference or change is due to random chance.

Research Ethics and Reliability

As research involving human beings can be sensitive from the perspective of the research topic, participants and even investigators (Aho & Kylmä, 2012), it was decided that an ethical review should be obtained from the Ethics Committee of Pirkanmaa Hospital District (2022). The review involved the perspective of the participants, potential beneficial and adverse effects of the research and an evaluation of the research quality, as advised by the National Board on Research Integrity in Finland (TENK, 2019; TENK, 2023). Special attention was paid to informing the target group of the research aim, purpose, process, reporting and use of the results. It was considered essential that the participants were aware of their rights (Varis, 2015). They received a cover letter by post with the relevant data. The random sampling from the Digital and Population Data Register ensured that all residents in the region of South Ostrobothnia had an equal chance of being chosen (TENK, 2023). The anonymity of the participants was protected throughout the research process. Power analysis was conducted to determine sample size (Reito, 2021).

RESULTS

Demographic Data

The total number of respondents was 459 (response rate 23.1%). As shown in Table 1, the majority of them (59%) were women. The greatest age group was 50–65 years (39%). The majority or 74% of the respondents were married or co-habiting and most (91%) of the 18–65-year-old respondents lived in a household of 1–2 adults.

Table 1: Demographic Respondent Data

	n=	Percent
Sex		
male	188	41 %
female	270	59 %
other	1	<1%
total	459	100 %
Age		
18–49 years	122	27 %
50–65 years	177	39 %
66–75 years	155	34 %
total	454	100 %
Marital status		
married or cohabitation	337	74 %
unmarried/single	59	13 %
separated or divorced	40	9 %
widow/widower	21	5 %
total	457	100 %
The highest level of completed education		
primary school, comprehensive school or middle school	71	16 %
upper secondary school, vocational school or or similar	156	34 %
college degree	90	20 %
bachelor's degree, university of applied sciences or master's degree	141	31 %
Total	458	100 %

The greatest groups of respondents had either an upper secondary level vocational qualification or similar (34%) or held a Bachelor- or Master-level degree from a university or university of applied sciences (31%). Most respondents were either retired (41%) or had a full-time job (40%). The remaining respondents were students, part-time workers or on family leave.

Respondents' Self-Rated Mental Wellbeing

An analysis of respondents' self-reported illnesses on the questionnaire showed that the younger respondents (18–49 years) more commonly lived with depression or other mental health problems, and headaches, compared to the older respondents. The difference was statistically highly significant ($p < 0.001$). The means and standard deviations for experienced mental wellbeing using the **Warwick-Edinburgh Mental Wellbeing Scale** are presented in Table 2. The men scored slightly higher (54.7) compared to women (53.8). The difference ($p = 0.253$) approaches statistical significance.

Table 2: Self-rated Mental Wellbeing and Coping, Means and Standard Deviations, based on the Warwick-Edinburgh Mental Wellbeing Scale (Tennant et al., 2007)

Warwick-Edinburgh Mental Wellbeing Scale	Mean	Standard Deviation	n=
Sex (p=0.253)			
male	54,7	8,1	182
female	53,8	8,5	263
Age (p<0.001)			
18–49 years	51,7 ^b	9,2	120
50–65 years	54,7 ^a	7,7	173
66–75 years	55,5 ^a	8,1	148
Marital status (p=0.034)			
married or cohabitation	54,6 ^a	8,2	330
unmarried/single	51,1 ^b	8,9	58
separated or divorced	54,6 ^{ab}	8,8	38
widow/widower	54,8 ^{ab}	8,8	19
The highest level of completed education (p=0.006)			
primary school, comprehensive school or middle school	54,6 ^{ab}	9,0	66
upper secondary school, vocational school or or similar	52,2 ^b	8,7	153
college degree	55,2 ^a	8,2	87
bachelor's degree, university of applied sciences or master's degree	55,3 ^a	7,5	139
Total	54,1	8,4	445

Averages that are not followed by the same letter differ statistically significantly at level $p < 0,05$.

The analysis revealed a highly significant statistical difference ($p < 0.001$) between the total scores by age group. Self-assessed mental wellbeing was better in the older age groups; the mean score was 55.5 for the 66–75-year-olds and 54.7 for the 50–65-year-olds, whereas it was 51.7 for the age group 18–49. The results remained the same when the youngest age group was broken into two categories, under 30 years (51.7) and 30–49 years (51.7).

Another highly significant statistical difference ($p = 0.006$) concerned respondents' education. Respondents with higher education reported better mental wellbeing (mean 55.3), compared to those with upper-secondary level vocational education (mean 52.2.) However, respondents with the least education rated their mental wellbeing as relatively high (54.6). In addition, single respondents had a lower mean score (51.1), compared to other groups (married/cohabiting/divorced 54.6; widowed 54.8. The difference ($p = 0.034$) approaches statistical significance.

Table 3 shows the results for respondents' potential depression by sex, age, marital status and education. A score of < 41 is indicative of probable clinical depression and a score of 41–44 is indicative of possible/ mild depression (Warwick Medical School, 2025). Women seemed to experience slightly more depression compared to men. The youngest age groups and alone-living single respondents seemed more likely to live with clinical depression, compared to other groups by age or marital status. Respondents with a vocational qualification more potentially lived with clinical depression, compared to respondents with higher education.

Table 3: Potential Depression by Sex, Age, Marital Status and Education

Warwick-Edinburgh Mental Wellbeing scale	n=	< 41, probable clinical depression	41-44, possible /mild depression	over 44, no depression	Total
Sex					
male	182	7 %	3 %	90 %	100 %
female	263	8 %	8 %	84 %	100 %
Age					
18-49 years	120	13 %	7 %	80 %	100 %
50-65 years	173	6 %	6 %	88 %	100 %
66-75 years	148	5 %	5 %	90 %	100 %
Marital status					
married or cohabitation	330	6 %	6 %	88 %	100 %
unmarried/single	58	16 %	9 %	76 %	100 %
separated or divorced	38	8 %	3 %	90 %	100 %
widow/widower	19	11 %	0 %	90 %	100 %
The highest level of completed education					
primary school, comprehensive school or middle school	66	9 %	5 %	86 %	100 %
upper secondary school, vocational school or similar	153	12 %	7 %	80 %	100 %
college degree	87	7 %	5 %	89 %	100 %
bachelor's degree, university of applied sciences or master's degree	139	3 %	6 %	91 %	100 %
Total	445	8 %	6 %	86 %	100 %

Looking at the 14 questions of the **Warwick-Edinburgh Mental Wellbeing Scale** in detail (Table 4), the three questions that produced statistically significant differences between age groups concerned self-perceived relaxation ($p<0.001$), confidence ($p<0.001$) and feeling good about themselves ($p<0.001$). Respondents between 50 and 75 years reported relaxation more commonly compared to the younger respondents. The older age groups also represented greater confidence and seemed to feel better about themselves. These differences were statistically significant between the youngest and oldest age group. In the 66-75 year-olds, 91% of the respondents reported having felt confident either often (54%) or all the time (37%). The experienced confidence was lowest in the youngest age group (18-49 years), with 58% choosing the option “often”, 17% the option “some of the time” and further 17% the option “all the time”. Similarly, a greater majority of the oldest age group (81%) and the middle group (77%) had been feeling good about themselves often or all the time, compared to the youngest group (55%). Although statistically not significantly, the older age groups also more commonly reported having had energy to spare.

Table 4: Self-rated Mental Wellbeing and Coping by Age Group based on the Warwick-Edinburgh Mental Wellbeing Scale

Tick the box that best describes your	None of the time	Rarely	Some of the time	Often	All of the time	Total
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experience, Comparison by age group 2024							
	n=	%	%	%	%	%	%
1. I've been feeling optimistic about the future (p=0.857)							
18-49 years	120	3	7	26	53	12	100
50-65 years	173	2	6	28	55	10	100
66-75 years	148	1	9	22	56	12	100
Total	448	2	7	25	55	11	100
2. I've been feeling useful (p=0.526)							
18-49 years	120	2	6	31	48	14	100
50-65 years	173	1	3	21	56	18	100
66-75 years	150	2	3	22	55	18	100
Total	450	2	4	24	53	17	100
3. I've been feeling relaxed (p<0.001)							
18-49 years	120	2	13	34	43	8	100
50-65 years	173	1	3	24	64	9	100
66-75 years	150	1	4	19	62	15	100
Total	450	1	6	25	58	10	100
4. I've been feeling interested in other people (p=0.094)							
18-49 years	120	3	12	20	48	18	100
50-65 years	174	0	5	22	55	19	100
66-75 years	149	1	7	17	48	26	100
Total	450	1	7	20	51	21	100
5. I've had energy to spare (p=0.269)							
18-49 years	120	4	8	37	45	6	100
50-65 years	173	2	9	28	55	6	100
66-75 years	149	2	8	23	56	10	100
Total	448	3	9	29	53	7	100
6. I've been dealing with problems well (p= 0.467)							
18-49 years	120	1	9	24	55	11	100
50-65 years	173	0	6	20	64	10	100
66-75 years	148	0	8	16	62	14	100
Total	448	0	8	20	61	12	100
7. I've been thinking clearly (p=0.002)							
18-49 years	120	0	5	21	55	19	100
50-65 years	173	0	0	12	58	31	100
66-75 years	149	0	1	9	56	34	100
Total	449	0	2	13	56	29	100
8. I've been feeling good about myself (p<0.001)							
18-49 years	120	4	12	29	47	8	100
50-65 years	173	1	6	16	60	17	100
66-75 years	148	1	4	17	53	26	100
Total	448	2	7	20	53	18	100
9. I've been feeling close to other people (p=0.125)							

18-49 years	120	3	10	25	46	17	100
50-65 years	173	1	5	21	54	19	100
66-75 years	149	0	3	25	49	23	100
Total	449	1	6	23	50	20	100
10. I've been feeling confident (p<0.001)							
18-49 years	120	3	8	17	56	17	100
50-65 years	174	0	3	14	51	32	100
66-75 years	149	1	3	6	54	37	100
Total	450	1	4	12	53	30	100
11. I've been able to make up my own mind about things (p=0.020)							
18-49 years	119	1	3	12	53	32	100
50-65 years	174	0	0	5	48	47	100
66-75 years	152	0	1	5	45	49	100
Total	452	0	1	7	48	44	100
12. I've been feeling loved (p=0.431)							
18-49 years	120	3	7	19	38	33	100
50-65 years	174	2	3	17	49	29	100
66-75 years	150	1	3	19	47	30	100
Total	451	2	4	18	46	31	100
13. I've been interested in new things (p=0.244)							
18-49 years	120	1	10	23	43	23	100
50-65 years	174	1	2	25	46	26	100
66-75 years	152	0	5	25	43	28	100
Total	453	0	5	25	44	26	100
14. I've been feeling cheerful (p=0.213)							
18-49 years	120	2	6	28	48	17	100
50-65 years	174	1	4	19	54	22	100
66-75 years	149	0	2	19	52	26	100
Total	450	1	4	21	52	22	100

Similar trends were observed in questions concerning the respondents' cognitive abilities. The majority of all respondents found that they had often been thinking clearly (56%) and dealing well with problems (61%). In the older age groups, the self-perceived thinking and problem solving skills were slightly higher than in the 18-49-years, but no statistical difference could be detected. Most respondents seem to trust their ability to make independent decisions. Again, the ratings were slightly lower for the youngest age group, but not statistically significantly so. More than half (55%) of all respondents reported having often felt optimistic about the future, and most respondents had been interested in new things often (44%), all the time (26%) or some of the time (25%). As can be discerned from Table 5, the results did not vary much between the age groups. A slight majority of all respondents reported having often been interested in other people. Similarly, 50% had often been feeling close to other people. When asked about the feeling of being useful, most responses were concentrated in the categories "often" (53%) and "some of the time" (24%). Last, the responses to the statements "and "I have been feeling cheerful" and "I have been feeling loved" were concentrated in three response categories: "often" (52 and 46% respectively); all

the time (22 and 31%) and “some of the time” (21 and 18%). There were no statistically significant differences between the age groups.

Table 5: Self-rated Vitality and Mental Health by Age Group based on the RAND 36-Item Short Form Health Survey SF-36 (Ware et al., 1993).

How much of the time during the past 4 weeks ...	n=	None of the time	A little of the time	Some of the time	A good bit of the time	Most of the time	All of the time	Total
1. Did you feel full of pep? (p=0.021)								
18-49 years	120	7 %	12 %	21 %	19 %	38 %	4 %	100 %
50-65 years	173	5 %	8 %	13 %	28 %	44 %	2 %	100 %
66-75 years	149	3 %	11 %	11 %	28 %	38 %	10 %	100 %
Total	442	4 %	10 %	15 %	25 %	41 %	5 %	100 %
2. Have you been a very nervous person? (p<0.001)								
18-49 years	119	19 %	40 %	24 %	15 %	3 %	0 %	100 %
50-65 years	173	42 %	45 %	11 %	1 %	1 %	1 %	100 %
66-75 years	144	59 %	29 %	10 %	1 %	1 %	0 %	100 %
Total	442	42 %	38 %	14 %	5 %	1 %	0 %	100 %
3. Have you felt so down in the dumps that nothin could cheer you up? (p=0.065)								
18-49 years	120	58 %	23 %	11 %	6 %	3 %	0 %	100 %
50-65 years	173	72 %	16 %	9 %	2 %	0 %	1 %	100 %
66-75 years	144	74 %	14 %	8 %	1 %	2 %	1 %	100 %
Total	442	69 %	17 %	9 %	3 %	1 %	1 %	100 %
4. Have you felt calm and peaceful? (p<0.001)								
18-49 years	119	2 %	9 %	18 %	29 %	35 %	8 %	100 %
50-65 years	171	2 %	4 %	11 %	23 %	50 %	9 %	100 %
66-75 years	149	3 %	6 %	5 %	19 %	45 %	22 %	100 %
Total	440	2 %	6 %	11 %	23 %	45 %	13 %	100 %
5. Did you have a lot of energy? (p=0.072)								
18-49 years	120	7 %	15 %	23 %	32 %	21 %	3 %	100 %
50-65 years	172	6 %	8 %	20 %	34 %	29 %	3 %	100 %
66-75 years	145	5 %	8 %	17 %	30 %	32 %	8 %	100 %
Total	443	6 %	10 %	20 %	32 %	28 %	5 %	100 %
6. Have you felt downhearted and blue? (p<0.001)								
18-49 years	117	27 %	43 %	14 %	11 %	4 %	1 %	100 %
50-65 years	172	45 %	38 %	12 %	4 %	1 %	0 %	100 %
66-75 years	140	54 %	29 %	11 %	1 %	4 %	0 %	100 %
Total	434	43 %	37 %	12 %	5 %	3 %	0 %	100 %
7. Did you feel worn out? (p<0.001)								
18-49 years	119	40 %	30 %	11 %	7 %	9 %	3 %	100 %
50-65 years	171	57 %	25 %	9 %	5 %	3 %	0 %	100 %
66-75 years	145	61 %	21 %	12 %	5 %	1 %	0 %	100 %
Total	441	54 %	25 %	10 %	6 %	4 %	1 %	100 %
8. Have you been a happy person? (p=0.402)								
18-49 years	119	1 %	6 %	22 %	21 %	35 %	15 %	100 %
50-65 years	171	2 %	4 %	16 %	19 %	47 %	12 %	100 %
66-75 years	146	1 %	7 %	12 %	21 %	41 %	19 %	100 %
Total	441	1 %	6 %	17 %	20 %	42 %	15 %	100 %
9. Did you feel tired? (p<0.001)								
18-49 years	119	3 %	23 %	43 %	12 %	12 %	8 %	100 %
50-65 years	170	4 %	42 %	38 %	11 %	4 %	1 %	100 %
66-75 years	145	20 %	41 %	29 %	7 %	3 %	1 %	100 %
Total	440	9 %	36 %	36 %	10 %	6 %	3 %	100 %

Table 5 shows the results for the vitality and mental health items of the **RAND 36-Item Short Form Health Survey SF-36**. Statistically highly significant differences were detected between younger (18–49 years) and older age groups (50–65 years and 66–75 years). The youngest age group reported more nervousness ($p<0.001$) and having felt tired ($p<0.001$), worn out ($p<0.001$) and downhearted and blue ($p<0.001$). In addition, a highly significant statistical difference ($p<0.001$) was observed between the youngest and the oldest age group, with the oldest respondents feeling more commonly calm and peaceful, compared to the age group 18–49. No statistically significant differences were observed by sex, marital status or education.

Factor analysis was used to determine that in this dataset, all nine of these vitality and mental well-being variables could be explained well by a single latent variable (60% of variance). There are factor scores calculated for each observation, which describe the placement of each observation on the factor obtained. This factor scores variable generally reflects the mental health/viability of respondents, so let's call it a mental health factor here (Table 6). Factor scores are scaled so that the average of all respondents is zero, and the highs represent good mental health and the lows represent weak. When comparing the averages of different respondent groups in this mental health factor variable, it is seen that there was a statistically significant difference between both men and women ($p=0.022$) and between different age groups ($p<0.001$). Men's average (0.13) was higher than women's (-0.08) and older age groups' averages (0,22 and 0,07) were higher than younger ones (-0,34).

Table 6: Means and Standard Deviations of Factor Scores based on the RAND 36-Item Short Form Health Survey SF-36 (Ware et al., 1993) by Sex, Age, Marital status and Education

	Mean		Standard Deviation	n=
Sex ($p= 0.022$)				
male	0,13	a	0,92	181
female	-0,08	b	0,96	259
Age ($p<0.001$)				
18–49 years	-0,34	b	1,08	120
50–65 years	0,07	a	0,84	172
66–75 years	0,22	a	0,91	144
Marital status ($p=0.089$)				
married or cohabitation	0,03		0,96	327
unmarried/single	-0,28		1,06	59
separated or divorced	0,17		0,79	36
widow/widower	-0,02		1,00	18
The highest level of completed education ($p=0.200$)				
primary school, comprehensive school or middle school	0,12		0,92	62
upper secondary school, vocational school or or similar	-0,13		1,01	152
college degree	0,08		0,98	87
bachelor's degree, university of applied sciences or master's degree	0,02		0,91	139
Total	0,00		0,96	443

In Table 7, respondents' mental wellbeing is depicted using different scaling; here, the total mean is set at 0 with minus scores indicating a lower mean compared to all respondents. Again, it can be seen that mental wellbeing clearly increased with age. The difference was statistically highly significant ($p < 0.001$) between the oldest (0.22) and the youngest age group (-0.34). In addition, experienced mental wellbeing was higher in men, compared to women, and in married or divorced respondents compared to single respondents, with these differences approaching statistical significance.

Table 7: Self-rated Role Limitations based on the RAND 36-Item Short Form Health Survey SF-36 (Ware et al., 1993).

		Reduced time spent on work or other tasks		I got less done than I wanted		I did not perform my work or other duties as carefully as usual	
	n=	Yes	No	Yes	No	Yes	No
Sex		(P=0.187)		(p=0.014)		(p=0.328)	
male	177	11 %	89 %	16 %	84 %	11 %	89 %
female	258	15 %	85 %	26 %	74 %	14 %	86 %
Age		(p=0.047)		(p=0.197)		(p=0.244)	
18-49 years	119	19 %	81 %	27 %	73 %	17 %	83 %
50-65 years	171	9 %	91 %	18 %	82 %	11 %	90 %
66-75 years	141	13 %	87 %	21 %	79 %	11 %	89 %
Marital status		(p=0.399)		(p=0.616)		(p=0.805)	
married or cohabitation	322	14 %	86 %	22 %	78 %	12 %	88 %
unmarried/single	57	16 %	84 %	25 %	75 %	16 %	84 %
separated or divorced	39	13 %	87 %	26 %	74 %	13 %	87 %
widow/widower	17	0 %	100 %	11 %	89 %	17 %	83 %
The highest level of completed education		(p=0.247)		(p=0.277)		(P=0.015)	
primary school, comprehensive school or middle school	61	13 %	87 %	23 %	77 %	18 %	82 %
upper secondary school, vocational school or similar	151	18 %	82 %	27 %	74 %	17 %	83 %
college degree	87	11 %	90 %	16 %	84 %	13 %	87 %
bachelor's degree, university of applied sciences or master's degree	139	11 %	89 %	20 %	80 %	6 %	94 %
Total	438	14 %	86 %	22 %	78 %	13 %	87 %

Role Limitations and Social Functioning

Table 7 shows respondents' responses to the question if their emotional problems, for example depression or anxiety, had interfered with their work or other regular activities in the past four weeks. In general, any emotional problems seem to have had relatively little effect on respondents' activities. Of all respondents, 22% felt that because of their emotional problems, they had managed to accomplish less than they had wanted. In addition, 14% reported having cut down the amount of time spent on work or other activities and 13% had not managed to carry out their tasks as carefully as usual. A slight difference ($p = 0.015$) was

detected between respondents with higher education and those with a vocational qualification; the latter group reported having performed less carefully than usual at work or in other activities. In addition, a difference was observed between men and women ($p=0.014$), with women more commonly feeling that they had accomplished less than they had wanted. Both values approached significance. When the number of yes answers to the relevant questions were examined (Table 8), it was discovered that the majority (76%) of the respondents did not give any yes answers. This means that according for most respondents in this study, emotional problems had not limited their daily activities at all. Comparison with the data on the results from the Warwick-Edinburgh Mental Wellbeing Scale revealed that the total WEMWBS score was higher (56.3) for this group of respondents, compared to those, who had more often felt that their daily activities were compromised due to emotional problems. A statistically highly significant difference was observed between respondents with no yes answers and those with one or three yes answers.

Table 8: Results on Role Limitations and WEMWBS combined

Due to emotional difficulties, how many of the listed problems occur at work and in other conventional tasks?	n=	Column Valid N %	Warwick-Edinburgh Mental Wellbeing Mean
			($p<0.001$)
None of the listed problems	335	76 %	56,3 a
1/3 of the listed problems	36	8 %	50,0 b
2/3 of the listed problems	30	7 %	46,8 bc
3/3 of the listed problems	38	9 %	44,5 c
Total	439	100 %	

The respondents were also asked how much their physical health or emotional problems had interfered with their social functioning or activities with family, friends, neighbours or other people. The results are shown in Table 9.

Table 9: Self-rated Limitations to Social Functioning (extent) (Ware et al., 1993).

	n=	not at all	a little / reasonably well	fairly much / very much	Total
Sex ($p=0.216$)					
male	180	68 %	28 %	3 %	100 %
female	265	62 %	32 %	6 %	100 %
Age ($p=0.058$)					
18-49 years	120	54 %	38 %	8 %	100 %
50-65 years	172	69 %	27 %	5 %	100 %
66-75 years	149	69 %	28 %	3 %	100 %
Marital status ($p=0.337$)					
married or cohabitation	327	65 %	30 %	5 %	100 %
unmarried/single	58	53 %	38 %	9 %	100 %
separated or divorced	39	74 %	18 %	8 %	100 %
widow/widower	21	62 %	33 %	5 %	100 %
The highest level of completed education ($p=0.960$)					
primary school, comprehensive	69	68 %	26 %	6 %	100 %

school or middle school					
upper secondary school, vocational school or or similar	152	61 %	34 %	5 %	100 %
college degree	85	65 %	29 %	6 %	100 %
bachelor's degree, university of applied sciences or master's degree	139	66 %	30 %	5 %	100 %
Total	445	65 %	30 %	5 %	100 %

The majority, 68% of men and 62% of women chose the option “not at all”. In men, just over one in four and in women, less than one third found that their problems had had a slight harmful effect on their social activities. The experienced adverse effect seemed to diminish with age. However, no statistically significant differences were observed by sex, age, marital status or education. Neither were there any statistically significant differences concerning the amount of time in which physical or emotional problems had interfered with the respondents' social activities, as shown in Table 10.

Table 10: Self-rated Limitations to Social Functioning in terms of time, (Ware et al., 1993)

	n=	not at all	awhile / sometime	most of the time / all of the time	Total
Sex (p=0.033)					
male	178	75 %	21 %	4 %	100 %
female	264	63 %	32 %	5 %	100 %
Age (p=0.102)					
18-49 years	120	62 %	33 %	6 %	100 %
50-65 years	171	67 %	30 %	3 %	100 %
66-75 years	147	74 %	20 %	6 %	100 %
Marital status (p=0.101)					
married or cohabitation	325	67 %	29 %	4 %	100 %
unmarried/single	58	60 %	31 %	9 %	100 %
separated or divorced	39	74 %	18 %	8 %	100 %
widow/widower	20	90 %	5 %	5 %	100 %
The highest level of completed education (p=0.940)					
primary school, comprehensive school or middle school	68	66 %	27 %	7 %	100 %
upper secondary school, vocational school or or similar	151	66 %	30 %	5 %	100 %
college degree	85	67 %	28 %	5 %	100 %
bachelor's degree, university of applied sciences or master's degree	138	70 %	25 %	4 %	100 %
Total	445	68 %	27 %	5 %	100 %

DISCUSSION

The study was a survey with 459 randomly sampled respondents in western Finland, based on the Warwick-Edinburgh Mental Wellbeing Scale and the attributes vitality, mental wellbeing, social functioning and role limitations due to emotional problems of the RAND 36-

Item Short Form Health Survey. It revealed relatively good results for self-rated mental health and coping, despite the setting of a post-pandemic country, with people affected by an atmosphere of economic insecurity and the war in the Ukraine. The mean score on the Warwick-Edinburgh Mental Wellbeing Scale for all respondents was 54.1 on a scale from 14 to 70, with a standard deviation of 8.4. Most respondents reported that emotional problems had not interfered with their daily work, other regular activities or social functioning at all. As in some other studies, for example Koushede et al., (2019), the mean score was higher for men compared to women, with the difference approaching statistical significance.

The results of this study showed positive ratings and the World Happiness Reports have consistently ranked Finland as number one on well-being (World Happiness Report 2024). In contrast, it has been estimated that 20–25% of the population in Finland face a mental health problem within a year (Mielä Mental Health Finland, 2024). The different results might reflect the polarization of the population or they may partly be due to the use of different instruments.

In this study, perceived mental wellbeing was better in the older age groups, with the respondents aged 18–49 scoring lower than the 50–75-year-olds. The younger respondents more commonly lived with depression or other mental health problems, compared to the older respondents. These differences were statistically highly significant. In addition, statistically significant differences were observed between the age groups 18–49 and 66–75, with the older respondents reporting higher self-perceived relaxation, confidence and feeling good about themselves.

Similarly, in a study reported by Koushede et al. (2019), mental health scores increased with age in Denmark and Iceland. In an extensive follow-up survey with US adults during the COVID-19 pandemic, adults aged 65 years or older reported less adverse mental health symptoms, compared to younger respondents (Czeisler et al. 2021a). In Australia, adults aged <65 years experienced disproportionate burdens of adverse mental and behavioural health symptoms during a prolonged COVID-19-related lockdown (Czeisler et al. 2021b).

It is possible that higher perceived mental health in the oldest age group could be explained by one or several of the following: better resilience, coping, sense of coherence and emotional intelligence that have evolved with increasing age and are associated with mental wellbeing (American Psychology Association, 2018; Eriksson & Lindström 2006; 2007; Vergera et al., 2015). If it is accepted that these concepts at least partly represent skills that can be cultivated, this is a plausible explanation. Feeling well and being satisfied is also a matter of attitudes and values; the older generation may be wary of overly positive expectations and avoid complaining about “every little thing”.

In this study, respondents, who were single rated their mental wellbeing as lower, compared to those who were married, co-habiting, divorced or widowed. Loneliness has been found to be associated with low mental wellbeing, anxiety and depression in the Nordic countries (Lyyra et al., 2021). Furthermore, in this study respondents with a vocational qualification or similar scored lower in mental wellbeing, compared to respondents with a higher education. This result is in harmony with the association between education and mental wellbeing

(Suldo & Shaffer, 2008; Finnish Institute for Health and Welfare, 2023; Uusi-Einola, 2022). Education may provide social networks, reduce loneliness (Tervala, 2023) and increase awareness of the mental health services available. On the other hand, good mental health may increase study motivation. The fact that the respondents with the least education rated their mental wellbeing as relatively high in this study might be partly explained by their age. The older respondents mostly had less education compared to the younger generations but reported higher mental wellbeing.

CONCLUSION

The study highlights the importance of investing in promoting the mental health of young and single alone-living people, who rated their mental wellbeing as lower compared to the older or married/cohabiting respondents. Younger respondents have also more diagnosed with psychiatric diseases. Education should remain a priority, since it seems to be associated with better experienced mental health. Experienced mental wellbeing was higher in men, compared to women.

Disclosure statement

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