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Employment status, mental disorders and service use in the working age population

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Objectives This study examined the association between employment status and specific DSM-IV (Diagnostic and Statistical Manual for Mental Disorders, IVth edition) depressive, anxiety and alcohol use disorders and the association between employment status and service use for these disorders.

Methods As part of the representative population-based “Health 2000 Study” of Finns aged 30 years or over, 3440 employed, 429 unemployed, and 820 economically inactive persons of working age (30–64 years) participated in a comprehensive health examination, including the standardized Composite International Diagnostic Interview.

Results The risk of mental disorders was generally higher among the unemployed and the economically inactive than among the employed. The respective odds ratios were 1.79 [95% confidence interval (95% CI) 1.26–2.54] and 1.54 (95% CI 1.06–2.25) for depressive disorders, 2.68 (95% CI 1.85–3.89) and 2.53 (95% CI 1.76–3.65) for anxiety disorders, and 2.58 (95% CI 1.82–3.65) and 1.43 (95% CI 0.91–2.22) for alcohol use disorders. Similar results were obtained for most of the specific categories of these disorders. Among the persons with anxiety disorders, the odds for treatment contact were 2.35 (95% CI 1.06–5.23) times higher for the unemployed than for the employed after control for disorder severity. For those with an alcohol use disorder, the corresponding odds ratio was 3.51 (95% CI 1.23–9.98).

Conclusions Common mental disorders are less prevalent among the employed than among unemployed and economically inactive people. Among those with anxiety or alcohol use disorders, service use is less common among the employed than among the unemployed. This difference is not explained by the severity of the clinical state.

Key terms alcohol use disorder; anxiety disorder; depression; employment situation; population-based study; prevalence; treatment contact.

Mental disorders are burdensome because of their high prevalence and chronicity, early age of onset, and the resulting serious impairment (1–3). The cost of mental disorders, particularly depression, to employers in terms of lost workdays and reduced productivity is substantial (4–6). In Finland, mental disorders were the most common cause of disability pensions being granted in 2004 (7).

The epidemiology of mental disorders has been widely studied (8–16), but relatively few studies have examined the association between employment status and mental disorders (11–16). In the survey of the International Consortium in Psychiatric Epidemiology (ICPE), employed respondents had the lowest 12-month estimated comorbid prevalence in five of the seven countries studied (15). The European Study of the

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Epidemiology of Mental Disorders (ESEMED) described the 12-month prevalence of DSM-IV (Diagnostic and Statistical Manual for Mental Disorders, IVth edition) mental disorders in six European countries and found that unemployment was related to a higher risk of mental disorders in general, and mood and alcohol disorders in particular (16). In addition, unemployed people have been shown to use primary and mental health care more frequently than employed people (17), and they also have increased hospitalization rates (18). However, it is not known whether the increased service use simply reflects the poorer health of the unemployed (19).

Several aspects of the association between employment status and mental disorders have remained unclear. Previous studies have either ignored the association between employment status and specific diagnostic categories of mood, anxiety, or substance use disorders or have not controlled for potential confounding factors such as socioeconomic status or have not reported service use. The aim of our present study was to investigate the association between employment status and specific DSM-IV depressive, anxiety, and alcohol use disorders among a sample of the working age population. We controlled the associations for several potential confounding factors, including socioeconomic status, as indicated by occupational grade. We also examined the association between employment status and service use for depressive, anxiety, and alcohol use disorders, taking into account the severity of the clinical state.

Study population and methods

Study design and data collection

A multidisciplinary epidemiologic health survey, the Health 2000 Study, took place in 2000–2001 in Finland. The two-stage stratified cluster sample was representative of the Finnish population aged 30 years or over (14, 20, 21). The strata were the five university hospital districts, each serving about one million inhabitants and differing in several features related to geography, economic structure, health services, and the sociodemographic characteristics of the population (20–22). First, the 15 largest cities were included with a probability of one. Next, within each of the five districts, all 65 other areas were sampled, with the probability proportional-to-population-size (PPS) method applied. Finally, from each of these 80 areas, a random sample of people was drawn from the National Population Register.

Data collection started in August 2000 and was completed in March 2001. The participants were interviewed at home (phase 1), where they were given a questionnaire to be returned at the time of the clinical health

examination approximately 4 weeks later (phase 2). During the home interview the respondents also received an information leaflet, and their written informed consent was obtained.

The original sample comprised 8028 persons aged 30 years or over. Fifty-one persons of the 8028 had died before the interview. Thus 7977 persons were alive on the day of the first phase of the survey. Of the original sample, 6986 (87%) were interviewed. The number participating in the health examination was 6770 (84%). A structured mental health interview, the Composite International Diagnostic Interview (CIDI), was performed with 6038 (75%) persons, of whom 33 were excluded due to being clearly unreliable on the basis of mental retardation or self-expressed intention to lie. The total number of reliably performed interviews was 6005 (75%).

Of the original sample, 5871 persons were of working age (30 to 64 years). These working age persons comprised the base population of our study. Of this sample, 5152 (88%) persons were interviewed, 4935 (84%) persons returned the questionnaire, and 4886 (83%) participated in the health examination, including the CIDI interview. The total number of reliably performed CIDI interviews was 4706, amounting to 80% of the total working age sample. Details of the methodology used for the Health 2000 Study have been published earlier (14, 21).

Compared with those who participated in the CIDI interview, those who did not were younger (45 versus 46 years, $P < 0.001$), more often men (56% versus 48%, $P < 0.001$), unmarried (39% versus 24%, $P < 0.001$), blue-collar workers (43% versus 35%, $P < 0.001$), or self-employed (17% versus 14%, $P < 0.001$), unemployed (14% versus 9%, $P < 0.001$) persons or economically inactive (28% versus 17%, $P < 0.001$). For the Beck Depression Inventory (BDI) scores, there were no statistically significant differences between those who participated in the CIDI interview and those who did not. Among the nonparticipants, the mean scores of the BDI were significantly higher for the unemployed (mean 8.8) and the economically inactive (mean 9.4) than for the employed (mean 4.8) ($P < 0.001$). This finding is in agreement with the differences between employment statuses among the participants. [See the Results section.]

Study population

The final study population of 4706 persons comprised 2469 (weighted percentage 50.2%) women and 2237 (weighted percentage 49.8%) men (table 1). The mean age of the participants was 46.4 (SE 0.14) years. Of the study population, 3440 (73.6%) were employed, 429 (9.1%) were unemployed, and 820 (17.3%) were economically inactive. The group of 820 economically

Table 1. Distributions of sociodemographic factors among the study population (N=4706).^a

Factor	Total working age sample ^b		Employed ^b		Unemployed ^b		Economically inactive ^b	
	N	%	N	%	N	%	N	%
Gender								
Male	2237	49.8	1700	51.8	182	44.7	345	43.5
Female	2469	50.2	1740	48.2	247	55.3	475	56.5
Age								
30–34 years	667	13.8	544	15.4	48	10.8	74	8.5
35–44 years	1410	29.4	1171	33.5	124	27.9	106	12.4
45–54 years	1580	34.3	1301	38.5	152	35.9	125	15.8
55–64 years	1049	22.6	424	12.6	105	25.4	515	63.3
Marital status								
Married	3544	75.5	2691	78.2	249	57.7	604	73.5
Unmarried	1145	24.5	749	21.8	180	42.3	216	26.5
Occupational grade								
Upper white-collar	1137	24.3	954	27.6	44	10.4	139	17.0
Lower white-collar	1280	27.0	936	26.8	119	27.2	225	27.7
Blue-collar	1605	34.9	1024	30.4	242	57.4	339	42.6
Self-employed	635	13.9	514	15.2	21	5.0	100	12.7

^a Employment status missing in 17 cases.

^b The data were weighted to take into account the sampling design and to reduce bias due to nonresponse.

inactive included 67 students, 118 housewives, 617 persons on disability pension, and 18 other persons.

Employment status

Information on employment status was collected in the home interview. Employment status was divided into the following three groups: the employed, the unemployed, and those economically inactive. The economically inactive group included housewives, students, and those on disability pensions, among others. The term “non-employed” referred to a combined group of the unemployed and the economically inactive persons. Employment status was missing in 17 cases.

Mental health assessment

The mental health interview was performed at the end of the comprehensive health examination using the standardized CIDI interview, which has been shown to be a valid assessment measure of common mental nonpsychotic disorders (23). A Finnish translation of the German, computerized version of the CIDI (M-CIDI) was used (14, 24). This program uses operationalized criteria for DSM-IV diagnoses (25) and allows the estimation of DSM-IV diagnoses for major mental disorders. The 21 interviewers were primarily nonpsychiatric health care professionals. They had received 3–4 days of training in the administration of the CIDI interview from psychiatrists and physicians who themselves had been trained by a trainer authorized by the World Health Organization.

The available DSM-IV diagnoses were grouped into categories of depressive, anxiety, and alcohol use

disorders. The category of depressive disorders included the last 12 months' diagnoses of a major depressive disorder or dysthymia. Anxiety disorders included panic disorder (with or without agoraphobia), generalized anxiety disorder, social phobia, phobia not otherwise specified, and agoraphobia (without panic disorder). The participants with alcohol use disorders included those fulfilling the diagnostic criteria of alcohol dependence or abuse during the last 12 months. The results have been reported using DSM-IV criteria without diagnostic hierarchy rules for mental disorders.

The severity of the clinical state was assessed as follows: among persons with depressive disorders (major depressive disorders and dysthymia), the original BDI was used (26, 27). The assessment consists of 21 items with Likert-type response scales scored from 0 to 3. At least 14 items had to be completed for the assessment to be accepted. A mean score for the depressive symptoms was then calculated. In a subgroup of persons with a major depressive disorder, and also among persons with anxiety disorders, the severity of the clinical state was assessed according to symptoms reported in the CIDI interview. Among the persons with alcohol use disorders, the severity of the clinical state was assessed by the amount of alcohol consumed. The participants reported their habitual frequency and amount of beer, wine, and spirit consumption in the questionnaire. This information was transformed into grams of alcohol per month.

Service use for mental health and alcohol problems

The use of services for mental health problems was assessed by asking the participants if they had visited any

services on the following list, either as an outpatient or inpatient, for problems with mental health during the past 12 months: community health centers, occupational health services, psychiatric outpatient clinics or mental health centers, outpatient clinics for substance use problems, family counseling centers, private outpatient appointments with physicians or psychologists, psychiatric hospitals, other hospitals, rehabilitation centers, and other services. The use of services for alcohol problems was assessed by asking the participants if they had visited a psychiatrist, physician, nurse, or other professional for problems with alcohol during the past 12 months.

Sociodemographic factors

The following information on sociodemographic characteristics was collected in the home interview: gender, age, marital status (married or co-habiting versus others), and occupational grade. The categories of occupational grade were based on the occupational classification of Statistics Finland (28) as follows: white-collar worker, lower white-collar worker, blue-collar worker, and self-employed. For the unemployed and the economically inactive, the occupational grade was coded on the basis of previous employment or education. There was a small group of participants (N=32) for whom occupational grade could not be coded.

Statistical analysis

The descriptive statistics on the prevalences of mental disorders in relation to background variables were analyzed by cross-tabulations and chi-square tests. In order to test the differences in the severity of depressive symptoms (as measured by the BDI score) between persons in different employment situations, a one-way analysis of variance (ANOVA) was used.

Binary logistic regression models were used to calculate adjusted odds ratios (OR) and their 95% confidence intervals (95% CI) for mental disorders among persons in different employment situations. A

corresponding analysis was run for the association between the employment situation and treatment contact among persons with a depressive, anxiety or alcohol use disorder. In models of treatment contacts, we additionally adjusted for the severity of the clinical state of the participants.

Weighting adjustment and sampling parameters were used in all of the analyses to account for the survey design complexities, including clustering in a stratified sample (20, 21). A complex sampling design such as ours can influence variance estimates of both population averages and regression coefficients, and therefore standard statistical methods based on simple random sampling are not adequate, either in analyzing descriptive statistics or in regression modeling. In contrast, weighting adjustment and sampling parameters allow the translation of sample data to population averages, as expressed by weighted percentages, means, and odds ratios. We used procedures (CROSSTABS, REGRESS and RLOGIST) of the SAS/SUDAAN program (SAS Inc, Gary, NC, USA) for this purpose.

Results

Mental disorders in relation to sociodemographic factors

The prevalence of specific depressive, anxiety, and alcohol use disorders are presented in tables 2–4. Depressive and anxiety disorders were more common among the women than among the men (9.2% and 5.2%, $P<0.001$; 6.3% and 4.5%, $P=0.004$, respectively), whereas alcohol use disorders were more common among the men than among the women (10.1% and 1.9%, $P<0.001$, respectively). There was no difference in the prevalence of depressive and anxiety disorders between various age categories. The prevalence of alcohol use disorders decreased with age ($P=0.007$). All of the disorders were more common among those unmarried than among those married (all $P<0.001$).

Table 2. Depressive disorders among the working age sample by employment status (N=4689). (OR = odds ratio, 95% CI = 95% confidence interval)

Group	Major depressive disorder ^a				Dysthymia ^a				Any depressive disorder ^a			
	N	%	OR ^b	95% CI	N	%	OR ^b	95% CI	N	%	OR ^b	95% CI
Employed	187	5.3	1.00	..	57	1.6	1.00	..	225	6.4	1.0	..
Unemployed	42	9.5	1.78	1.20–2.64	21	4.9	2.64	1.46–4.76	52	11.9	1.79	1.26–2.54
Economically inactive	41	5.0	1.11	0.73–1.69	36	4.5	3.69	2.11–6.42	64	7.9	1.54	1.06–2.25
All	270	5.6	..	..	114	2.4	..	..	341	7.1	..	..

^a The data were weighted to take into account the sampling design and to reduce bias due to nonresponse.

^b Adjusted for gender, age, marital status, and occupational grade.

Table 3. Anxiety disorders among the working age sample by employment status (N=4689). (NOS = not otherwise specified, OR = odds ratio, 95% CI = 95% confidence interval)

Group	Panic disorder ^a				Agoraphobia ^a				Social phobia ^a				Generalized anxiety disorder ^a				Phobia NOS ^a				Any anxiety disorder ^a			
	N	%	OR ^b	95% CI	N	%	OR ^b	95% CI	N	%	OR ^b	95% CI	N	%	OR ^b	95% CI	N	%	OR ^b	95% CI	N	%	OR ^b	95% CI
Employed	66	1.9	1.00	.	6	0.2	1.00	.	31	0.9	1.00	.	34	1.0	1.00	.	25	0.7	1.00	.	144	4.1	1.00	.
Unemployed	20	4.6	2.27	1.39–3.71	5	1.2	6.24	1.58–24.62	14	3.3	3.14	1.62–6.11	13	3.2	3.50	1.81–6.76	6	1.4	1.68	0.68–4.19	47	11.1	2.68	1.85–3.89
Economically inactive	19	2.3	1.82	0.97–3.38	15	1.8	12.60	4.25–37.36	11	1.4	3.01	1.37–6.62	15	1.8	2.54	1.10–5.86	18	2.2	2.93	1.43–6.02	63	7.7	2.53	1.76–3.65
All	105	2.2	.	.	26	0.6	.	.	56	1.2	.	.	62	1.3	.	.	49	1.0	.	.	254	5.4	.	.

^a The data were weighted to take into account the sampling design and to reduce bias due to nonresponse.

^b Adjusted for gender, age, marital status, and occupational grade.

Table 4. Alcohol use disorders among the working age sample by employment status (N=4689). (OR = odds ratio, 95% CI = 95% confidence interval)

Group	Alcohol abuse ^a				Alcohol dependence ^a				Any alcohol use disorder ^a			
	N	%	OR ^b	95% CI	N	%	OR ^b	95% CI	N	%	OR ^b	95% CI
Employed	48	1.4	1.00	.	141	4.2	1.00	.	158	4.7	1.00	.
Unemployed	15	3.6	2.37	1.32–4.23	45	10.8	2.55	1.76–3.70	49	11.7	2.58	1.82–3.65
Economically inactive	15	1.9	2.32	1.12–4.82	31	3.8	1.14	0.70–1.84	39	4.8	1.43	0.91–2.22
All	78	1.7	.	.	217	4.7	.	.	246	5.4	.	.

^a The data were weighted to take into account the sampling design and to reduce bias due to nonresponse.

^b Adjusted for gender, age, marital status, and occupational grade.

Mental disorders by employment status

The prevalence of depressive disorders varied according to the employment status (table 2). The risk of a major depressive disorder was higher for the unemployed than for the employed, and the risk of dysthymia was higher among the unemployed and economically inactive than among the employed. There were also significant differences in the prevalences of specific categories of anxiety disorders between employment statuses (table 3). The risks of agoraphobia, social phobia, and a generalized anxiety disorder were higher among the unemployed and the economically inactive than among the employed. The risk of panic disorder was higher for the unemployed and the risk of phobia (not otherwise specified) was higher for the economically inactive than for the employed.

As shown in table 4, employment status and alcohol use disorders showed an association with each other. The risk of alcohol abuse was higher for both the unemployed and the economically inactive than for the employed, whereas the risk of alcohol dependence was higher for the unemployed than for the employed. There was no significant interaction between gender and employment status in association with depressive, anxiety, or alcohol use disorders.

Service use for mental disorders by employment status

Altogether 32% of the employed, 47% of the unemployed, and 44% of the economically inactive persons with depressive disorders had visited health services due to their mental health problems during the past 12 months. The probability of service use was higher for the unemployed than for the employed (table 5). Among the depressive persons, a statistically significant difference in the severity of the clinical state (BDI) was found between the categories of employment status ($F=10.8$, $P<0.001$), the highest score being attained by the economically inactive persons and the lowest by the employed. The severity of the clinical state was also associated with the probability of treatment contact ($P=0.004$). When the severity of the clinical state (a continuous BDI sum score) was entered into the logistic regression model, the association between service use and employment status was attenuated (table 5). Similar results were obtained for a subgroup of persons with a major depressive disorder after adjustment for the number of symptoms in the CIDI interview.

About one-third of the employed (31%) and economically inactive (34%) persons with anxiety disorders had visited health services during the past 12 months due to their mental health problems, whereas about half

Table 5. Treatment contact during the previous 12 months among the working age sample of persons with DSM-IV mental disorders. [DSM-IV = Diagnostic and Statistical Manual for Mental Disorders (IV edition), OR = odds ratio, 95% CI = 95% confidence interval]

Type of disorder	Treatment contact ^a					
	N	%	OR ^b	95% CI	OR ^c	95% CI
Depressive disorders						
Employed	73	32.3	1.00	·	1.00	·
Unemployed	25	47.1	1.93	1.01–3.68	1.65	0.84–3.26
Economically inactive	28	43.9	1.88	0.91–3.92	1.46	0.71–3.02
All	126	36.8	·	·	·	·
Anxiety disorders						
Employed	44	30.6	1.00	·	1.00	·
Unemployed	23	48.0	2.08	0.97–4.44	2.35	1.06–5.23
Economically inactive	21	33.5	1.66	0.77–3.57	1.87	0.88–3.99
All	88	34.6	·	·	·	·
Alcohol use disorders						
Employed	20	12.4	1.00	·	1.00	·
Unemployed	17	34.1	3.68	1.31–10.37	3.51	1.23–9.98
Economically inactive	6	15.4	2.01	0.60–6.80	1.98	0.59–6.66
All	43	17.2	·	·	·	·

^a The data were weighted to take into account the sampling design and to reduce bias due to nonresponse.

^b Odds ratios adjusted for gender, age, marital status, and occupational grade.

^c Odds ratios adjusted for gender, age, marital status, occupational grade, and severity of clinical state (in depressive disorders by the Beck Depression Inventory, in anxiety disorders by the Composite International Diagnostic Interview, and in alcohol use disorders by the amount of alcohol consumption).

(48%) of the unemployed had done so (table 5). In a group of persons with anxiety disorders, there was no statistically significant difference in the severity of clinical state between the various categories of employment status ($F=0.2$, $P=0.857$). The severity of the disorder was associated with a higher probability of treatment contact ($P<0.001$). After adjustment for severity, the odds of treatment contact was 2.4 times higher for the unemployed than for the employed (table 5).

Altogether 12% of the employed persons with an alcohol use disorder had visited health services during the past 12 months, compared with 34% of the unemployed and 15% of the economically inactive. The probability of treatment contact was higher for the unemployed than for the employed (table 5). With regard to the monthly amount of alcohol consumed among the persons with an alcohol use disorder, there was no statistically significant difference between the various categories of employment status ($F=0.7$, $P=0.485$). Higher alcohol consumption was weakly associated with a higher probability of treatment contact ($F=3.0$, $P=0.085$). When the level of alcohol consumption was entered into the logistic regression model, the association between employment status and service use for alcohol problems persisted (table 5). This association also remained after comorbidity with psychiatric disorders or any limiting long-term illness was controlled.

Discussion

In this sample of the Finnish working age population aged 30 to 64 years, the risk of depressive, anxiety, and alcohol use disorders was generally higher among the nonemployed (those unemployed and those economically inactive) than among the employed after control for several confounding factors. Similar results were obtained for most of the specific categories of these disorders. The National Psychiatric Morbidity Survey of Great Britain also found that both the unemployed and economically inactive had a higher 1-week prevalence of neurotic disorders than the employed (11), and in the Netherlands Mental Health Survey and Incidence Study (NEMESIS) mental disorders were the least common among people in paid employment (12). In the Australian National Survey of Mental Health and Well-Being, employed persons had lower rates for all of the psychiatric disorders (13). However, in none of these studies was the association between specific diagnostic categories and employment status reported.

Work and employment appear to represent pro-health factors and may protect against or alleviate depression (29, 30). According to the social causation hypothesis, employment influences health by contributing to social status and power, as well as to economic independence, social support, and self-esteem. According to the selection hypothesis, health status can result in changes in employment status. Unhealthy people are more likely to become unemployed (31) and more unlikely to become re-employed (32). Our results confirmed the association between unemployment and mental disorders, but due to the cross-sectional study design it was not possible to draw conclusions about the causality (33). Our findings of poor mental health among unemployed people may reflect the adverse effects of unemployment, but the reverse is also possible (ie, that those with poorer mental health were more likely to be excluded from the labor market).

Previous studies have revealed that only a minority of people with mental disorders in the general population receives treatment for these disorders (19, 34). In developed countries, 36% to 50% of serious cases have been shown to be untreated (19). Moreover, the quality of care appears not to be adequate either at the level of primary care (35, 36) or psychiatric care (37). In Finland, local authorities are responsible for the provision of various mental health services for residents. Visits to public health centers or specialized mental health centers are the principal sources of outpatient treatment for people with mental health problems. In addition, most employers provide their employees with various medical services. In spite of good access to public health care, in a recent Finnish study, only 59% of even those suffering from the most severe

major depressive episodes had used health services for depression (38).

In a recent report of the Organisation for Economic Co-operation and Development, the employed population in Finland was suggested to have better access to general practitioners due to occupational health care than the nonemployed (39). However, in line with previous studies (17, 18), our results show that the probability of treatment contact for mental disorders is higher for the unemployed than for the employed. Among those with depressive disorders, the unemployed had a worse clinical state than the employed, and this finding explained the association between employment status and treatment contact. Among those with anxiety or alcohol use disorders, we found no evidence that unemployed persons had a more serious disorder than employed persons, and, after adjustment for disorder severity, the unemployed still had a higher probability of treatment contact. These results may reflect a link between access to social benefits and service contact among unemployed persons suffering from mental disorders. The unemployed may also have more time to visit health care services than those employed. It is also possible that, in spite of good access to occupational health services, a fear of job loss and stigma may hinder the help seeking of those employed due to mental problems.

Study strengths and limitations

The use of data from the Finnish Health 2000 Study has several strengths. The study sample of 4689 persons represented the entire Finnish 30- to 64-year-old population, and the participation rate was very good. A total of 80% participated. Therefore, the results can be generalized to the Finnish working population in the age range of 30 to 64 years. The questionnaire measures, the CIDI interview, the estimates for the severity of clinical state, and the examination protocols were all selected on the basis of standardized, generally accepted recommendations and nationally established practices. The M-CIDI interview has been found to be valid and reliable in assessments of mental disorders (10, 19, 24).

A nonresponse analysis revealed that, in terms of the severity of the clinical state, as assessed with the BDI, there was no difference between the participants and the nonparticipants with respect to the CIDI interview. Among the nonparticipants, mental health (BDI) was better among the employed than among the nonemployed, as was the case among the participants. These data suggest that major bias due to nonresponse was unlikely in our study.

Unfortunately, in the Health 2000 Study, the CIDI interview did not include young adults of 18 to 29 years of age, and therefore the whole working age population

was not represented. The category of economically inactive represents a rather heterogeneous group, including those on disability pension, housewives, and students. However, the small number of housewives and students prevented stratified analyses. Thus findings regarding this group are difficult to interpret. Furthermore, data on service use and employment status were limited to self-reports and thus vulnerable to recall bias. Future studies might benefit from a multi-method assessment complementing employment status and service use with register data and case records of health care services. Furthermore, prospective studies with very large sample sizes are needed to shed light on the development process between employment status and mental disorders.

Concluding remarks

In conclusion, this study from a representative nationwide population of Finns 30 to 64 years of age shows that common depressive, anxiety, and alcohol use disorders are less prevalent among employed than among unemployed and economically inactive people. Among persons with anxiety or alcohol use disorders, service use is more common among the unemployed than among the employed, and this difference is not explained by the severity of the disorder. Future research is warranted to assess whether needs for treatment are adequately met across all employment groups.

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