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Return to work after temporary disability pension in Finland

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Abstract

Purpose: When it is possible that the employee's work ability can be restored through treatment or rehabilitation, disability pension in Finland is granted for a fixed period. We examined which factors are associated with return to work (RTW) after such temporary disability pension.

Methods: The study included all Finnish residents whose temporary disability pension from the earnings-related pension system started in 2008 (N=10,269). Competing risks regression analysis was applied to examine register-based determinants for RTW after temporary disability pension due to mental disorders, musculoskeletal diseases, other diseases, and injury over a 4-year follow-up period.

Results: The overall cumulative incidence of RTW was 25%. RTW was more probable after temporary disability pension due to injury and musculoskeletal diseases and less probable after temporary disability pension due to mental disorders. Younger age and higher education increased RTW but differences between genders, private and public sector employees, and occupational classes were relatively small. The probability of RTW was higher among those who were employed before their temporary disability pension (subhazard ratio in multivariate analysis 2.41 (95% CI 2.13-2.72) and among the 9% who participated in vocational rehabilitation during their pension (SHR 2.10 (95% CI 1.90-2.31)). With some exceptions, the results were fairly similar for all diagnostic causes of temporary disability pension.

Conclusions: Return to work after temporary disability pension was relatively uncommon. Nevertheless, in all diagnostic groups RTW continued for the whole follow-up period. The low educated and those not employed before temporary disability pension need more support in their RTW. The strong association between vocational rehabilitation and RTW suggests that increasing rehabilitation among those with impaired work ability may promote return to work.

Key words: Return to work, Disability Leave, Vocational Rehabilitation, Risk factors

Introduction

Disability retirement causes a significant burden to societies struggling with the challenges imposed by an aging workforce [1, 2]. As disability retirement often occurs at a relatively young age it considerably lowers the effective retirement age. In addition to costs for the society, early retirement has negative consequences for the individual as work is an important source of material and psychological well-being. The OECD report on sickness, disability and work argues that too many people with work disability leave the labour market permanently, and too few are able to return to work or stay at work [3]. Thus, increasing labour force participation is an important issue on the scientific and policy agenda and there is a strong emphasis on encouraging people to work with their remaining work ability and to avoid permanent exit from work.

In Finland, the national sickness insurance scheme compensates for work disability lasting less than one year. If work disability continues, a disability pension can be granted [4]. When it is possible that the employee's work ability can be restored through treatment or rehabilitation, the pension provider will grant a temporary pension that will cover the estimated period of disability. Temporary disability pension is often continued after the initial period, but usually a decision between permanent disability pension and return to labour market is made within two years. For mental disorders temporary disability pensions are often longer as the development of the illness and its final outcome are harder to predict. Temporary disability pension thus offers one more chance of evaluating one's work ability before permanent disability pension and exit from working life. Currently, about half of all disability pensions are granted as temporary [5]. Although an exactly similar sickness and disability benefit scheme does not exist in any other country, the Finnish system largely corresponds with the arrangements in other countries where disability pension follows long-term sickness absence [3].

A large number of studies have examined return to work (RTW) after illness or sickness absence. Most employees are able to return to work in a relatively short period of time but when the time away from work increases, the probability of returning to work decreases [6]. However, the evidence on the factors that affect RTW is conflicting. A systematic review identified 16 factors that were significantly associated with continuing sickness absence among employees who had been sickness absent for at least 6 weeks [7]. Only older age and history of sickness absence were associated with continuing sickness absence in more than one study.

The evidence for other individual and work-related factors was insufficient in this review based on five cohort studies that met all inclusion criteria. Inconsistent findings may also be explained by differences in the medical diagnoses of the absence. Different illnesses may set different barriers to employment and these barriers may vary according to demands of occupations and work tasks. Other reviews have examined factors that are related to RTW in more restricted disease groups such as mental disorders [8, 9], chronic somatic illnesses [10], musculoskeletal diseases [11], and injury [12, 13]. Socioeconomic factors have been rarely included in the reviews and the evidence of their associations with RTW is scarce. A large number of interventions exist to facilitate and hasten return to work. Workplace-based interventions such as job accommodations and early contact between the employer and the employee have been found to shorten work disability duration [14].

This study examined RTW after temporary disability pension in Finland using nationally representative register-based data. The specific aims were to examine: 1) the incidence of RTW after temporary disability pension due to mental disorders, musculoskeletal diseases, other diseases, and injury over a 4-year follow-up period, and 2) whether various demographic and socioeconomic factors and vocational rehabilitation are associated with RTW in total and in the four above mentioned disease groups.

Methods

All cases of temporary disability pension (formally "cash rehabilitation benefit") starting in 2008 were derived from the register of the Finnish Centre for Pensions. The register includes all pension recipients from the earnings-related pension system but not those who don't have any work history and therefore receive national pension only. We excluded persons who had already received some disability pension during the preceding two years (n=1,133). We also excluded 610 persons whose temporary disability pension was partial, as they usually continue part-time work alongside their pension, leaving 10,269 persons with newly granted full temporary disability pensions to the data. The dataset consists of register data which were anonymized and not possible to trace back to individuals. The Finnish Centre for Pensions obeys the ethical standards of The Finnish Advisory Board on Research Integrity and monitors that responsible scientific practice is followed in collecting, analysing and reporting of data.

Granting of temporary disability pension always requires at least one medically diagnosed illness that limits one's work ability. The primary medical diagnosis assigned to the pension when it was granted was classified into mental disorders (ICD-10 Chapter F, 4,297 cases), musculoskeletal diseases (Chapter M, 3,016 cases), other diseases (2,072 cases), and injury (Chapters S and T, 884 cases). In the group of mental disorders the most common diagnosis was depression (F32-F33) with 2,473 cases. Bipolar disorder (F31, 611 cases) and schizophrenia (F20, 279 cases) were next common. In the group of musculoskeletal diseases back problems (M40-M54, 1,253 cases), shoulder problems (M75, 474 cases) and knee problems (M17, 390 cases) were predominant. The group of other diseases mainly consisted of neoplasms (C00-D48, 622 cases), cardiovascular diseases (Chapter I, 496 cases) and diseases of the nervous system (Chapter G, 447 cases).

Measures

Return to work

Information of return to work was based on the common employment register of the insurance companies maintained by the Finnish Centre for Pensions. The register includes all em-

ployment contracts in Finland. RTW was determined by the beginning of the first employment contract lasting for at least 4 consecutive weeks after full temporary disability pension had ended. Each retiree was followed up for at most 4 years from the beginning of their temporary disability pension in 2008.

Explanatory variables

Age at the beginning of the temporary disability pension was classified as 18-34, 35-44, 45-54 and 55-62 years. Information on educational level was received from Statistics Finland and classified into those with basic schooling or no qualifications, lower-secondary education, upper-secondary education, and tertiary education.

A measure of occupational class was derived by first separating all self-employed and farmers based on the type of employment insurance they had in the registers of the Finnish Centre for Pensions. Wage earners where then classified into manual workers and non-manual employees according to their occupational title derived from Statistics Finland [15]. If occupation at the end of 2007 was missing, information at the end of two previous years was used. As there was still a considerable number of people without an occupation, the register of the Finnish Centre for Pensions was used to separate those who were unemployed at the end of 2007 or the two previous years. For the rest occupational class remained unknown.

Public sector and private sector employees were separated based on the information of the institution which was responsible for paying the pension. Employment status before temporary disability pension was based on the employment register. As disability pension is usually preceded by a sickness allowance period of one year, and work contracts are registered as terminated after one year's interruption in the payment of salary, we used work contract information one year before the pension started. Taking part in vocational rehabilitation during temporary disability pension was measured by the receipt of rehabilitation increment that is an additional sum paid to disability pension retirees when they participate in rehabilitation. Only vocational rehabilitation by the pension insurers, consisting mainly of work and training trials, job coaching and occupational re-education, was covered. As vocational rehabilitation is primarily provided by the pension insurers, our study includes nearly all of such individual-

based vocational rehabilitation. Medical rehabilitation or rehabilitative workplace health promotion typically organized in the form of group rehabilitation was not included.

Statistical methods

Return to work was examined using competing risks regression based on Fine and Gray's proportional sub-hazards model [16]. Compared to standard survival analysis where the follow-up of non-events terminates only due to censoring, competing risk analysis takes into account competing events that prevent the event of interest from occurring. Treating observations that experience competing events as if they could later experience the event of interest overestimates the probability of failure, and the bias is larger when the competition due to frequent competing events is heavier [17].

Each retiree was followed up for the maximum of four years. During that time, 2,552 retirees (25%) returned to work. Permanent disability pension (5,285), old-age pension (50) and death (299) were used as competing events that impede return to work. Time until the first event was recorded. 2,083 of those whose temporary disability pension started in 2008 did not return to work or experience any of the competing events, and were thus censored at the end of follow-up. Among these were 1067 retirees whose temporary disability pension still continued after four years. For most of them (778) the pension had been granted on the basis of mental disorders. Among those whose temporary disability pension ended within 4 years the average length of the pension was 14.5 months.

We first estimated the cumulative incidence of return to work over the follow-up period in the total study population and in the four diagnostic groups under the assumption of competing risks. The effects of the explanatory variables on RTW were then assessed using the sub-hazard ratio (and its 95% confidence intervals) associated with the cumulative incidence function. We first examined age-adjusted associations and then conducted multivariate analyses adjusting all explanatory variables mutually for each other to find out their independent effects. Wald test was used to assess whether the associations between the explanatory variables and RTW were different in the four diagnostic groups. The analyses were conducted using Stata 12.1.

Results

Figure 1 presents the cumulative incidence of RTW during the 4-year follow-up period in the four groups separated by the medical diagnosis of temporary disability pension. Return to work was most common among those who had retired due to injury and least common among those who had retired due to mental disorders. After four years, 38% of those retiring due to injury had regained employment whereas among those retiring due to mental disorders the corresponding figure was 18% (see also Table 1). RTW was first more rapid but slowed down over time. Most notably, RTW slowed down among those who had retired due to "other diseases". However, among those who had retired due to mental disorders RTW continued monotonously during the whole 4-year follow-up period.

Table 1 shows the distribution of the explanatory variables, separated by medical diagnosis of the pension, and the proportion of those who had returned to work during the 4-year follow-up period. When comparing the distributions across diagnostic groups, those who had retired due to mental disorders were younger and those who had retired due to musculoskeletal diseases were older than other retirees. Women were overrepresented among those who had retired due to mental disorders and men among those who had retired due to injury. Those who had retired due to musculoskeletal diseases or injury less often had upper secondary or tertiary education. Compared to other retirees, those who had retired due to mental disorders were seldom manual workers, but they were often unemployed or their occupation was unknown. Half of those who had retired due to musculoskeletal diseases or injury were manual workers. 70 percent of the retirees worked at the private sector, slightly more often if they had retired due to injury. Having been employed one year before the temporary disability pension was less common among those who had retired due to mental disorders. Nine percent of the retirees had vocational rehabilitation during their temporary disability pension with no clear differences between the diagnostic groups.

RTW was less common in the oldest age group and those who had only basic education (Table 1). Differences in RTW between genders, private and public sector employees, and occupational classes were relatively small except that RTW was clearly less common among the unemployed and those with unknown occupation. RTW was more common among those who were employed one year before their temporary disability pension and those who had vocational rehabilitation during their pension.

Associations between the explanatory variables and RTW were then analyzed using the competing risks models (Table 2). After adjustment for age, each of the explanatory variables was statistically significantly associated with RTW. This was also the case in the multivariate analysis including all explanatory variables simultaneously. However, the associations of gender, educational level, and employment sector with RTW were rather weak. Between occupational classes only unemployed and those with unknown occupation had poorer prospects for RTW compared to manual workers. Being employed before temporary disability pension (SHR 2.41 (95% CI 2.13-2.72)) and rehabilitation during the pension ((SHR 2.10 (95% CI 1.90-2.31)) strongly increased the probability for RTW.

Table 3 presents the associations between the explanatory variables and RTW separately for the main diagnostic groups. Younger age was associated with increased RTW in all diagnostic groups (p-value for differences between diagnostic groups in the multivariate analysis 0.11). RTW was more likely among women after temporary disability pension due to mental disorders and musculoskeletal diseases, but not after temporary disability pension due to "other diseases" or injury ($p<0.001$). Higher education increased RTW in all diagnostic groups after adjustment for age only, but for temporary disability pension due to "other diseases" and injury the association was not statistically significant after adjustment for the other explanatory factors ($p=0.11$). Differences between occupational classes were small: RTW was more probable among non-manual employees than manual workers after temporary disability pension due to mental disorders and "other diseases", but these associations disappeared after adjustments. Self-employed had higher probability for RTW after injury ($p=0.03$). Those working in the public sector had higher probability for RTW after temporary disability pension due to mental disorders and injury but not after temporary disability pension due to musculoskeletal diseases or "other diseases" ($p=0.03$). Being employed before temporary disability pension was strongly associated with RTW in all diagnostic groups ($p=0.02$). Also participating into occupational rehabilitation was associated with RTW in all diagnostic groups. However, the association was strongest for those with temporary disability pension due to mental disorders and weaker for those with temporary disability pension due to musculoskeletal diseases or injury ($p<0.001$).

Discussion

In Finland, disability pension is granted as temporary if there are chances that the employee may recover and return to work. Typically, the retirees have a sickness absence period of one year before their disability pension begins. We examined return to work after temporary disability pension over the follow-up period of 4 years. Overall, 25 percent of temporary disability retirees returned to work for at least one month during the follow-up period.

However, there were notable differences in the pace and prevalence of RTW between the groups separated by the diagnosis of temporary disability pension. In four years, 38% of those who had retired due to injury resumed work while the corresponding figure among those who had retired due to mental disorders was only 18%. Among those who had retired due to musculoskeletal diseases 33% and among those who had retired due to "other diseases" 23% returned to work in 4 years. These differences correspond to earlier studies reporting better return to work outcomes after long-term absence due to musculoskeletal diseases and poorer results among those have been absent due to mental disorders [18-20].

For temporary disability pension due to injury, musculoskeletal diseases and "other diseases" return to work was first more rapid but slowed down over time. In particular, RTW slowed down in the group of "other diseases" after approximately 1.5 years. Supplementary analyses showed that the pattern was quite similar in all the major disease groups within this large category. Faster RTW in the beginning is likely to reflect work resumption after more clear-cut illnesses where actions towards return to work are easier to implement. A disability pension can be normally granted when sickness allowance has been paid for the maximum period of 300 working days, and in some cases return to work may be quite presumable but the sickness allowance period is not long enough for recovery and a temporary disability pension is thus granted. Yet, in all diagnostic groups RTW continued for several years after the beginning of temporary disability pension. If return to work requires for example re-education work resumption may last several years.

In contrast to the other disease categories, among those whose temporary disability pension was based on mental disorders RTW continued steadily over the whole follow-up period. Those with a temporary disability pension due to mental disorders are younger than other retirees and when the pension is based on mental disorders the proportion of disability pensions

granted as temporary is larger [5]. Mental disorders may often have phases of remission and re-occurrence and the duration of the illness and final recuperation may be difficult to predict [21]. For about one tenth of the study population temporary disability pension still continued after four years and this was clearly more common when the pension was based on mental disorders (18% of those with temporary disability pension due to mental disorders had their temporary disability pension continuing after 4 years). Long evaluation period for disability benefits based on mental disorders may be justified but it is also possible that return to work would have occurred earlier if a decision concerning termination of the benefit was made earlier. Those who retire due to mental disorders have weaker connections to working life which also is likely to slow down their re-employment.

Return to work was clearly more common in the younger age groups. This has been a consistent finding also in previous studies [7]. Poorer RTW outcomes in the older age groups did not depend on the variation of medical reasons of temporary disability pension across the age groups as younger age was strongly associated with better RTW in all four diagnostic groups. Better RTW in the younger age groups is remarkable, as the proportion of all disability pensions granted as temporary is very high among the young but decreases strongly by age. In the youngest age group of this study 91% of all disability pensions in 2008 were granted as temporary whereas the proportion in the oldest age group was 23% [22]. In general, employment opportunities may be better for younger generations who are also typically more highly educated than the older ones. Older employees may need more time to recover from health problems and they may be more inclined to prefer other possibilities than re-employment. In Finland disability pension is used as an early retirement pathway more commonly than in other countries [23].

Previous studies on gender differences in RTW have shown mixed results and often found no differences between women and men [24, 25]. In our study, RTW was more common among women but the gender difference was rather small when examining all causes of temporary disability pension together. Diagnosis-specific results showed better RTW among women particularly after temporary disability pension due to mental disorders. Previous reviews on RTW after mental disorders have generally supported better results among women but there are also some opposite findings [8, 9]. Temporary disability pension due to mental disorders is more common among women and there may be differences how well the disorders among women and men are detected and how they are treated [26]. In our study mental disorders

constitute a large category and the observed gender difference may reflect differences between women and men in the specific diagnoses within this category. Return to work has been shown to be less common after schizophrenia and alcohol-related mental disorders [27] and these conditions are more typical among men.

Previous studies on RTW by socioeconomic factors are scarce. Reviews on RTW after absence due to mental disorders have reported some evidence that low education and low job grade are associated with poorer RTW [8, 9]. In our study, RTW increased with increasing education, but the differences attenuated considerably in the multivariate models adjusting for the other explanatory factors. After the adjustments, those with upper-secondary education had better RTW after temporary disability pension due to mental disorders and musculoskeletal diseases. The more highly educated may have more employment opportunities in the labour market and they may have jobs that are easier to modify according to their health needs [28]. Differences between manual and non-manual employees were small. Non-manual employees had better RTW than manual workers after temporary disability pension due to mental disorders, but the association disappeared in the adjustments. The stronger association for educational level than for occupational class may suggest that other factors than occupational requirements explain the association. Public sector employees had better return to work after temporary disability pension due to mental disorders and in particular due to injury. This may relate to differences in occupational structures between private and public employers and there may be differences also in sickness absence and RTW practices. Public sector employers are relatively large and they may have better opportunities to re-organize work to be more suitable for one's current work ability.

Those who were classified as unemployed by occupational class had poorer prospects to RTW. Correspondingly, being employed before temporary disability pension was strongly associated with better RTW. Information on employment status at the beginning of temporary disability pension was not available, and therefore employment status was measured one year previously. We do not know whether those working one year before their temporary disability pension were employed when the pension started but it is probable that most of them did. In Finland illness is not an acceptable reason for termination of one's employment contract as such but it is nevertheless possible if the employee's work ability has been seriously restricted over long term. As many employees return to their previous job or can have other tasks in the same workplace, the finding that RTW was more common among those who had

an employment contract before temporary disability pension is expected. In a Dutch study 19% of employees without an employment contract sick listed for at least 13 weeks returned to work after 7-9 months while in a comparable study among sick-listed employees 81% returned to work in the same time [29]. In our study difference between those with and without an employment contract seemed smaller. If return to the same employer is not possible, for persons with disabilities finding a new job is very challenging [30, 31] and the prospects may depend on the prevailing economic situation. Those who are unemployed may also be less likely to have vocational rehabilitation and RTW guidance to assist with their re-employment.

Return to work was more common among those who had vocational rehabilitation during their temporary disability pension. The association was found in all diagnostic groups but it was stronger for those with temporary disability pension due to mental disorders and weaker for those with temporary disability pension due to musculoskeletal diseases or injury. The proportion of those who had received rehabilitation was larger among those with temporary disability pension due to musculoskeletal diseases than in other diagnostic groups but the differences were small. Previous studies have found vocational rehabilitation and other workplace-based interventions to have a small positive effect [32, 33] or no effect [34-36] on RTW. The inconsistencies may partly relate to the wide variation in the content of the interventions. In our study only vocational rehabilitation by the pension providers was included. This vocational rehabilitation most commonly consists of work and training trials and job coaching or occupational re-education. Medical or vocational rehabilitation by other organizers was not included nor was medical treatment or care. The findings may also be affected by selection of the participants into vocational rehabilitation. Rehabilitation is targeted to those who are expected to have best possibilities to benefit from it. In our study a large number of other factors were adjusted for but the association between rehabilitation and RTW remained strong despite these adjustments. This suggests that selection according to these or any correlated factors does not explain the association. However, in future studies selection should be better taken into account to better evaluate the effect of rehabilitation on RTW.

Strengths and limitations

The data was representative and based on reliable register-based sources. The study population included all new temporary disability recipients during one year. All of them were not

necessarily employed when their temporary disability pension started but since they received pension from the earnings-related pension scheme they must have had working history sometimes earlier in their past. Sensitivity analyses conducted only among those who were employed one year before their temporary disability pension started showed that the associations between the explanatory factors and RTW remained very similar than in the whole study population.

The follow-up was relatively long extending to 4 years from the beginning of temporary disability pension. Unlike in many previous studies where RTW is determined only by termination of the disability benefit, in our study RTW was based on employment contracts. We examined the cumulative incidence of return to work for at least one month. Supplementary analyses showed that at the end of the 4-year follow-up period, 20 percent of the temporary disability retirees we employed. This is 5 percentage points lower than the cumulative incidence, indicating that for all RTW was not sustainable. Nevertheless, the median time of employment among those who returned to work was relatively long: 25 months during the period extending to 4 years from the beginning of the temporary disability pension.

Conclusion

Although recuperation of work ability is seen as a possible outcome when a temporary disability pension is granted, return to work after such disability pension was relatively uncommon. Nevertheless, in all diagnostic groups RTW continued for the whole 4-year follow-up period. The probability of RTW strongly differed between the diagnostic groups, but the determinants of RTW were fairly similar despite the diagnosis. Those with low education and those not employed before temporary disability pension need more support in their RTW. Vocational rehabilitation during temporary disability pension was rare, but the strong association between vocational rehabilitation and RTW suggests that increasing rehabilitation measures among those with impaired work ability may promote return to work.

Conflicts of interest

The authors declare that they have no conflicts of interest.

Ethics statement

The dataset consists of register data which were anonymized and not possible to trace back to individuals. The Finnish Centre for Pensions obeys the ethical standards of The Finnish Advisory Board on Research Integrity and monitors that responsible scientific practice is followed in collecting, analysing and reporting of data.

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Figure 1. Cumulative incidence of return to work after temporary disability pension by diagnostic group

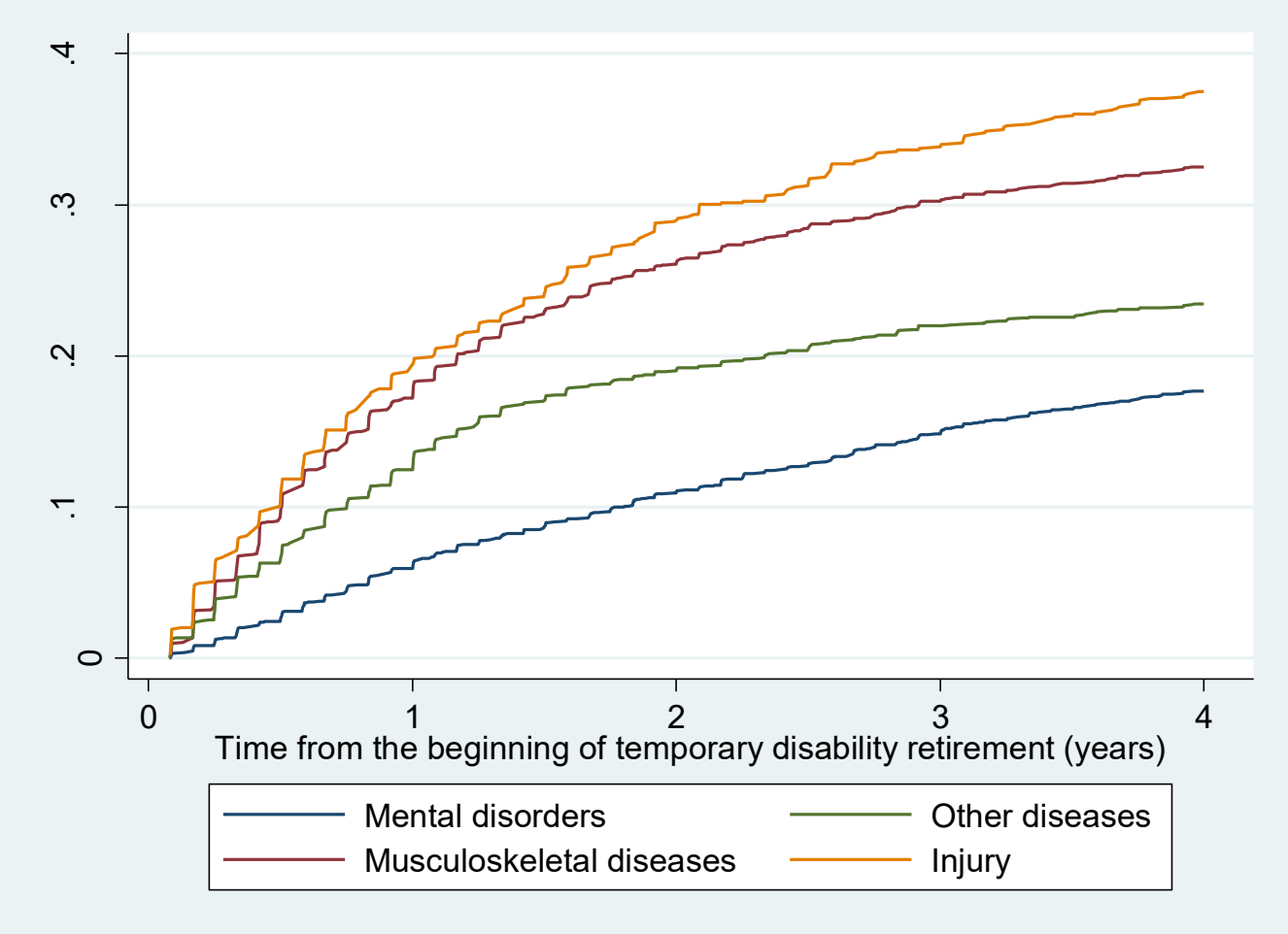

Table 1. Distribution of the explanatory variables among all retirees and by the medical diagnosis of the pension and the proportion of those who returned to work during 4 years by the explanatory variables

	N	%					RTW
			Mental disorders	Musculoskeletal diseases	Other diseases	Injury	
Diagnosis							
Mental disorders	4,297	42					18
Musculoskeletal diseases	3,016	29					33
Other diseases	2,072	20					23
Injury	884	9					38
Age							
18-34	1,611	16	27	5	9	14	33
35-44	2,095	20	25	15	19	22	30
45-54	3,887	38	32	43	42	39	26
55-62	2,676	26	16	38	30	26	15
Gender							
Men	5,057	49	42	52	54	65	23
Women	5,212	51	58	48	46	35	27
Educational level							
Basic	3,106	30	25	36	31	33	20
Lower-secondary	5,376	52	51	55	51	56	26
Upper secondary	1,058	10	13	7	11	8	30
Tertiaty	729	7	11	2	7	3	30
Occupational class							
Manual workers	3,867	38	25	50	41	49	29
Non-manual employees	3,307	32	38	27	33	21	30
Self-employed	856	8	6	10	9	13	27
Unemployed	1,491	15	19	10	12	12	6
Unknown	748	7	12	3	5	6	18
Employment sector							
Private	7,285	71	68	71	73	79	24
Public	2,984	29	32	29	27	21	27
Employed before TDP							
No	3,544	35	46	24	28	31	11
Yes	6,725	65	54	76	72	69	32
Rehabilitation during TDP							
No	9,379	91	92	90	91	92	22
Yes	890	9	8	10	9	8	60
All	10,269	100	100	100	100	100	25

Table 2. Return to work after temporary disability pension by explanatory variables (N=10,269)

	Age adjusted	Mutually adjusted
	SHR (95% CI)	SHR (95% CI)
Age		
18-34	2.37 (2.08-2.70)	2.73 (2.39-3.14)
35-44	2.17 (1.91-2.47)	2.35 (2.06-2.68)
45-54	1.83 (1.62-2.06)	1.83 (1.62-2.07)
55-62	1.00	1.00
Gender		
Men	1.00	1.00
Women	1.20 (1.12-1.30)	1.16 (1.06-1.26)
Educational level		
Basic	1.00	1.00
Lower-secondary	1.26 (1.15-1.38)	1.06 (0.97-1.17)
Upper secondary	1.57 (1.37-1.79)	1.20 (1.04-1.38)
Tertiaty	1.47 (1.26-1.71)	1.09 (0.93-1.28)
Occupational class		
Manual workers	1.00	1.00
Non-manual employees	1.05 (0.96-1.14)	0.91 (0.82-1.00)
Self-employed	1.06 (0.92-1.22)	1.07 (0.93-1.24)
Unemployed	0.46 (0.39-0.55)	0.80 (0.67-0.97)
Unknown	0.18 (0.14-0.22)	0.36 (0.28-0.45)
Employment sector		
Private	1.00	1.00
Public	1.19 (1.09-1.29)	1.12 (1.03-1.23)
Employed before TDP		
No	1.00	1.00
Yes	3.67 (3.31-4.08)	2.41 (2.13-2.72)
Rehabilitation during TDP		
No	1.00	1.00
Yes	2.98 (2.72-3.25)	2.10 (1.90-2.31)

Table 3. Return to work after temporary disability benefit by explanatory variables in the major diagnostic groups

	Mental disorders (N=4,297)		Musculoskeletal diseases (N=3,016)		Other diseases (N=2,072)		Injury (N=884)	
	Age adjusted SHR (95% CI)	Mutually adjusted SHR (95% CI)	Age adjusted SHR (95% CI)	Mutually adjusted SHR (95% CI)	Age adjusted SHR (95% CI)	Mutually adjusted SHR (95% CI)	Age adjusted SHR (95% CI)	Mutually adjusted SHR (95% CI)
Age								
18-34	4.46 (3.24-6.13)	5.01 (3.61-6.96)	3.73 (2.93-4.75)	3.63 (2.83-4.65)	4.17 (3.06-5.69)	3.81 (2.75-5.28)	2.44 (1.71-3.48)	2.97 (2.05-4.30)
35-44	3.25 (2.35-4.51)	3.43 (2.47-4.78)	2.93 (2.42-3.53)	3.23 (2.65-3.94)	2.98 (2.24-3.98)	2.89 (2.14-3.89)	1.77 (1.26-2.48)	1.97 (1.40-2.77)
45-54	2.49 (1.79-3.45)	2.50 (1.81-3.46)	2.02 (1.72-2.39)	2.09 (1.77-2.48)	2.05 (1.56-2.69)	1.95 (1.48-2.57)	1.42 (1.03-1.96)	1.58 (1.14-2.19)
55-62	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Gender								
Men	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Women	1.83 (1.57-2.13)	1.52 (1.30-1.79)	1.23 (1.09-1.39)	1.25 (1.09-1.44)	1.15 (0.96-1.37)	0.99 (0.81-1.21)	1.24 (1.00-1.55)	1.04 (0.80-1.35)
Educational level								
Basic	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lower-secondary	1.17 (0.97-1.42)	0.96 (0.79-1.17)	1.40 (1.22-1.62)	1.27 (1.10-1.47)	1.23 (0.99-1.53)	1.00 (0.80-1.24)	1.41 (1.10-1.81)	1.15 (0.90-1.48)
Upper secondary	2.26 (1.78-2.87)	1.34 (1.04-1.72)	1.91 (1.52-2.40)	1.70 (1.33-2.17)	1.55 (1.15-2.10)	1.02 (0.74-1.40)	1.74 (1.15-2.63)	1.25 (0.81-1.93)
Tertiaty	2.26 (1.78-2.87)	1.30 (1.00-1.69)	1.59 (1.10-2.30)	1.41 (0.97-2.05)	1.90 (1.36-2.67)	1.17 (0.81-1.69)	0.95 (0.48-1.87)	0.73 (0.38-1.42)
Occupational class								
Manual workers	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Non-manual employees	1.63 (1.37-1.93)	1.05 (0.87-1.27)	1.12 (0.97-1.28)	0.98 (0.83-1.15)	1.26 (1.04-1.53)	1.13 (0.90-1.42)	1.14 (0.88-1.48)	0.98 (0.72-1.33)
Self-employed	1.00 (0.69-1.45)	0.90 (0.61-1.32)	1.10 (0.89-1.36)	1.09 (0.88-1.36)	0.94 (0.68-1.31)	1.01 (0.72-1.41)	1.29 (0.94-1.77)	1.39 (1.01-1.92)
Unemployed	0.84 (0.66-1.07)	1.21 (0.92-1.58)	0.35 (0.21-0.58)	0.64 (0.38-1.08)	0.38 (0.22-0.65)	0.72 (0.40-1.28)	0.53 (0.31-0.93)	0.82 (0.46-1.47)
Unknown	0.29 (0.21-0.40)	0.46 (0.32-0.66)	0.20 (0.14-0.29)	0.44 (0.30-0.66)	0.15 (0.08-0.28)	0.32 (0.17-0.61)	0.20 (0.11-0.37)	0.32 (0.17-0.62)
Employment sector								
Private	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Public	1.48 (1.28-1.71)	1.18 (1.01-1.38)	1.08 (0.95-1.24)	0.95 (0.82-1.10)	1.26 (1.04-1.54)	1.20 (0.96-1.50)	1.54 (1.20-1.99)	1.50 (1.13-2.00)
Employed before TDP								
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	2.87 (2.45-3.36)	1.84 (1.52-2.24)	3.69 (3.01-4.53)	2.56 (2.03-3.25)	4.52 (3.36-6.08)	2.80 (1.99-3.95)	2.91 (2.19-3.88)	2.04 (1.48-2.82)
Rehabilitation during TDP								
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	5.02 (4.26-5.92)	3.29 (2.74-3.96)	1.75 (1.51-2.04)	1.35 (1.15-1.58)	2.86 (2.34-3.50)	2.20 (1.78-2.72)	1.85 (1.41-2.42)	1.42 (1.05-1.92)