### Original

Lara Grau-López<sup>1</sup> Constanza Daigre<sup>1</sup> Alfred Granell<sup>2</sup> Laia Grau-López<sup>3</sup> Christian Fadeuilhe<sup>1</sup> Alfredo Calcedo-Barba<sup>4</sup> Carlos Roncero<sup>1</sup>

# Risk factors for temporary work disability

<sup>1</sup>Addiction and Dual Diagnosis Unit, Department of Psychiatry, Vall d'Hebron University Hospital-Public Health Agency, Barcelona (ASPB), CIBERSAM. Spain

<sup>2</sup>SAICE, S.L. Specializing in the valuation of Psychiatry and Clinical Neuropsychology company. Barcelona, Spain <sup>3</sup>Department of Neurosciences, Germans Trias i Pujol University Hospital, Badalona, Barcelona, Spain <sup>4</sup>Department of Psychiatry, Hospital General Universitario Gregorio Marañón, Madrid, Spain

Introduction. The relationship among labor difficulties and psychiatric disorders is important and bidirectional. However, current information about the influence of psychiatric disorders in temporary work disability in Spain is inconclusive. For this reason, we aimed to describe the prevalence of the conclusions of psychiatric expert's reports including maintain o revoke the temporary disability (TD). We also aimed to compare sociodemographic, clinical and therapeutic variables according with the decision of maintain or revoke this condition.

**Methodology.** A descriptive study was conducted in psychiatric patients that were examined by psychiatric experts during one year. At the examination time, the patients had a sick leave mean of 5 months. The psychiatric experts assessed their ability to work according to the interference of the psychiatric symptoms.

**Results.** A total of 380 patients were included (66.8% women,  $42\pm10.9$  years), 87.9% had a result of revoke the temporary work disability. No sociodemographic or therapeutic factors were associated with the continuity of sick leave. The most common diagnosis of patients who obtained a revoked temporary work disability was adjustment disorder (66.2% vs 13%, p=0.001) and patients who maintained the temporary work disability was major depressive disorder (45.7% vs 3.9%, p=0.001).

**Conclusions.** After a psychiatric expert's examination the most of the results suggest to revoke the temporary work disability. Major depressive disorder is the most commonly diagnostic associated to continue sick leave.

Keywords: Temporary work disability, Psychiatric expert's examination, Sick leave, Forensic psychiatry, Depression caused by mental disorders

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## Factores asociados a la incapacidad laboral temporal en peritajes psiquiátricos

Introducción. La relación entre dificultades laborales y trastornos psiquiátricos es estrecha y bidireccional. Sin embargo, los datos disponibles sobre patología psiquiátrica en los procesos de incapacidad laboral temporal (ILT) en España no son concluyentes. Por dicho motivo, los objetivos del presente trabajo son describir el porcentaje de decisión de revocar una ILT, tras un peritaje psiquiátrico de trabajadores de Cataluña, y comparar las características sociodemográficas, clínicas y terapéuticas en función de la decisión de revocar la ILT.

Metodología. Se realizó un estudio descriptivo en pacientes en situación de ILT por trastorno mental peritados durante un año, que acudían a valoración psiquiátrica tras un período acumulado de ILT (media de 5 meses). Los peritos psiquiatras debían valorar la capacidad laboral en función de la interferencia de los síntomas psiquiátricos del diagnóstico psiquiátrico principal que motivó el inicio de la baja laboral.

**Resultados.** Se incluyeron 380 pacientes (66,8% mujeres,  $42\pm10.9$  años). El 87,9% recibió el alta laboral. No existieron factores sociodemográficos y terapéuticos asociados a la continuidad de ILT. El diagnóstico mayoritario de los pacientes que recibían el alta laboral fue el trastorno adaptativo (66,2% vs 13%, p=0,001) y el de los pacientes con continuidad de ILT el trastorno depresivo mayor (45,7% vs 3,9%, p=0,001).

**Conclusiones.** Existe un elevado porcentaje de pacientes que reciben el alta laboral tras un peritaje psiquiátrico. El trastorno depresivo mayor es el diagnóstico que más se asocia con la continuidad de ILT.

Palabras clave: Incapacidad laboral temporal, Peritaje psiquiátrico, Baja laboral, Psiquiatria forense, Depresión

Correspondence: Lara Grau-López MD PhD Passeig Vall d'Hebron 119-129 08035 Barcelona. Spain Tel. y Fax: 93-4893880 E-mail: Igrau@vhebron.net

#### **INTRODUCTION**

Costs due to temporary work disability (TD) have increased in the recent years and the economic consequences of the temporary work disability affect the worker and the National Health System<sup>1</sup>. For the National Health System providing temporary work disability is more than 50% of funds managed in health centers, so control has become a priority for companies and public administration in our country<sup>2</sup>.

The TD recognized that individuals with temporarily disabling conditions that are a result of injuries, surgery or short-term medical conditions that prevent working capacity temporally and required treatment. The TD maximum duration is 365 days, extendable for an additional 180 days when it is presumed that the worker can be discharged by recovery or illness improvement in that period (Article 128.1 of Social Security General Law, LGSS).

In Spain the TD is surveyed by the National Health Service (INSS) when is due to a general disease on the first 365 days, by the Health Insurance when is due to a general disease or a workplace accident, the Offices for assessment of incapacity when the TD is 365 days up to 545 days and by the Medical Inspection of INSS due to non work until the 545 days period of delay rating (from 546-730), and also has competence to extend parts high during the first 365 days ILT. In Catalonia exists a specific Service that has the competence to manage the work disability call Catalan Institute of Medical Evaluations (ICAM).

Psychiatric disorders are one of the most frequents causes of deterioration in quality of life (QOL)<sup>3,4</sup> and is one of the main reasons of application and extension of work disability compared to other diseases<sup>5-9</sup>.

Mental disorders, but some specifics diagnostic groups (depressive disorders, anxiety disorders and adjustment disorders) are in Spain one of the most frequent causes of TD and long-term TD. According to their frequency, it has been reported that the psychiatric disorders are the second group of TD after musculoskeletal disorders, but also the second in TD duration, after oncologic TD<sup>10-13</sup>.

The relationship between labor problems and mental illness is important and bidirectional. In many cases, a temporary work cessation may be required for clinical improvement of psychiatric disorder. However, long-term disability can cause iatrogenic when increase social isolation or excessive inactivity which interfere with the psychiatric disorder recovery<sup>14</sup>.

Research on the associated characteristics of the psychiatric disorders TD duration is fewer than on other diseases. There are socio-demographic factors associated with an increased TD term on general population such as being female, older, live alone and have a low educational level. They have also been described works factors such as low labor skills, high work stress, and of unemployment risk, but also medical factors such as the psychiatric symptoms severity and the medical comorbidity<sup>15-17</sup>.

Although the data provided, the information available about psychiatric pathology in TD in Spain is scarce and partial. There are few studies on demographic and clinical factors on long-term TD for mental disorders, with contradictory and inconclusive data.

The aim of this article is: 1) to describe the prevalence of the conclusions of psychiatric expert's reports including maintain o revoke the TD, 2) to compare sociodemographic, clinical and therapeutic characteristics variables according with the decision of maintain or revoke this condition.

It is hypothesized that the end of the TD on psychiatric patients is high and that those who maintain the TD have a more psychiatric severity than those who get back to work.

#### METHODOLOGY

A descriptive study was conducted in psychiatric patients that were examined by psychiatric experts during one year. The psychiatric experts assessed their ability to work according to the interference of the psychiatric symptoms.

Inclusion criteria were: TD due to decompensation of psychiatric disorders and attends to a non-ICAM psychiatrists experts evaluation.

Patients signed the study informed consent, previously approved by the scientific committee of the assessment center. Patients data were anonymized before being analyzed. Patients did not receive financial compensation for participate on the study.

#### Variables

- The variables registry has been designed *adhoc* for the non-ICAM psychiatric experts evaluations: sociodemographic (age, sex, civil status and labor activity), clinical (only the psychiatric diagnosis that caused the TD was collected, the medical comorbidity according to the medical conditions at the time of the evaluation), labor (TD duration) and therapeutic (medication and the patient medical control: general practitioner, psychological or psychiatric on the private or public health).
- Psychiatric experts examination conclusions: It was considered that the patient must be back to work when the psychiatric experts considered that the patient was able to work, and the TD when the psychiatric experts considered the patient should continue it. The decision

of continue or conclude the process of TD was based on the principal psychiatric diagnosis that caused the TD, and psychiatric symptoms severity was assessed according to clinical judgment, taking into account the patient's functionality in their daily life different areas.

#### Procedure

This was the procedure performed by patients to get the psychiatric experts evaluation. Patients gets TD on general practitioner and after a cumulative period of TD, ICAM doctors refer patients to psychiatrists experts to evaluate their work ability. Three psychiatrists experts hired by ICAM examinated patients included in this study.

On the general psychiatric evaluation it is included a general anamnesis, the cause of TD and it is considered the work ability according to the current severity of the symptoms of the psychiatric disorder.

Finally the psychiatric experts conclude if the patient should continue in the TD or must be proposed to be back to work, depending on the possible work ability interference of the symptoms of the major psychiatric disorder that causes the TD.

#### Statistic analysis

Descriptive statistics (mean, standard deviation, frequency tables and risk estimation) of the main variables was performed. Subsequently, the data were analyzed bivariate level. Chi square test was used to compare categorical variables and the Student t test for continuous variables when two groups were compared. Risk estimation was performed on those variables that were significant. Data were collected and analyzed using SPSS version 18.0. In all cases statistical significance at p<0.05 were admitted.

#### RESULTS

#### Sample description

The statistical sample consisted of 380 patients who were visited during a year by a psychiatric expert to determinate their work ability

Table 1 describes the sociodemographic, clinical, labor and therapeutic sample variables. The patients were mostly women (66.8%) with a mean age of  $42\pm10.9$  years. The main psychiatric diagnosis forgets the TD was adjustment disorder (59.7%), followed by depressive disorders (16.8%) and anxiety disorders (15%). Patients had an average of  $147.7\pm125$ days off TD and 43.2% performed follow-up by GP (see Table 1). Over 26.3% of patients were not being treated by any

Table 1 Sample description							
	Sam	ble description					
Sociodemographic Variables (n=380)							
Age (years)	42±10.9	Work					
Sex (women)	66.8%	Restoration services	25.8%				
Civil status		Unskilled industry	18.9%				
Married	63.9%	Administration	15.5%				
Single	18.4%	Technicians and graduates	10%				
Divorced	15%	Qualified industry	9.2%				
Widower	2.7%	Manager and university	8.4%				
		Commercial	8.4%				
		Transport	3.7%				
Clinical Variabl	es (n=380)						
Medical comort	oidity	38.7%					
Adjustment disorder		59.7%					
Anxiety disorder		15%					
Depression		8.9%					
Dysthymia		7.9%					
Personality disorder		3.7%					
Addiction		3.2%					
Psychosis		1.1%					
Bipolar Disorder		0.5%					
Work Variables	i (n=380)						
Sick leave days		147.7 <u>+</u> 125					
Therapeutics V	ariables (n=	=380)					
Medication		73.7%					
Control							
General Practitioner		43.2%					
Public Mental Health Psych		rchiatrist 37.4%					
Psychologist		11.3%					
Private Ment	al Health Ps	ychiatrist 8.2%					

psychopharmacological drug, getting only psychotherapy or GP control.

When analyzing the prevalence of the different conclusions of labor psychiatric expert, it was observed that 87.9% (n=334) of patients on TD by mental disorder were proposed to get back to work.

## Results according to the conclusion of the psychiatric evaluation

Table 2 describes the related factors from the conclusion of the psychiatric evaluation issued by the non-ICAM psychiatric experts. Lara Grau-López, et al.

No statistically significant differences on the sociodemographic, labor and therapeutic factors were found among patients who remained in TD and those who get back to work.

Some psychiatric diagnoses were significantly associated with the decision to maintain the TD or get back to work. Comparing those who were proposed to get back to work with the patients that maintain the TD, the adjustment disorder was more frequent.

However, patients diagnosed with major depressive disorder usually maintain the TD more frequently than patients without this disorder (see Table 2).

#### CONCLUSIONS

A high percentage of TD evaluated patients get back to work after the psychiatric expert evaluation. The reason of this high percentage is that the main psychiatric diagnosis to initiate the TD was adjustment disorder. Psychiatrists expert evaluators considered that the adjustment disorder was not a severe mental disorder, in addition considered that from a functional point of view it do not cause daily or work dysfunction, so it was not justified to maintain the TD.

On the other hand, different studies have reported that prolonged TD (particularly those associated to mental disorders) is associated to a poorer quality of life, increased of morbidity and mortality and to a low socioeconomic status<sup>18</sup>. It has also been reported that prolonged work inactivity can generate itself a reinforcing effect of the disease even more difficult to treat<sup>19</sup>. For the above described, after a psychiatric expert evaluation it is tends to get patients back to work.

In this study the associated factors related with the diagnoses are describes and they were significantly associated to the probability of proposing an extension of the TD or propose get back to work. Patients with major depressive disorder diagnose were mainly proposed to maintain TD, being ten times more likely to continue the TD than other patients. However, adjustment disorders diagnose was related to be proposed get back to work, being six times more likely than on other patients.

	Total (n=380)	Ability to work (n=334)	Temporary Disability (n=46)		
Sociodemographics				t	р
Age (years)	42±10.9	41.9±10.9	42.6±11.1	0.431	0.67
	%	º/o	0/0	X <sup>2</sup>	р
Sex (women)	66.8	68	58.7	1.567	0.21
Civil status (married)	63.9	62.6	73.9	2.271	0.52
Clinical					
Medical comorbidity	38.7	37.1	50	2.825	0.09
Adjustment disorder	59.7	66.2	13	47.44	0.001
Anxiety disorder	15	14.4	19.6	0.855	0.36
Depression	8.9	3.9	45.7	86.55	0.001
Dysthimia	7.9	8.4	4.3	0.905	0.34
Personality disorder	3.7	3.3	6.5	1.187	0.28
Addiction	3.2	3	4.3	0.242	0.62
Psychosis	1.1	0.3	6.5	15.03	NA
Bipolar Disorder	0.5	0.6	0.1	0.277	0.6
Labor				t	р
Sick leave days	147.7 <u>±</u> 125	145.8±124.9	162.1±123.6	0.829	0.41
Therapeutic	0⁄0	0/0	0/0	X <sup>2</sup>	р
Medication	73.7	74	71.7	0.102	0.75
Control (Public Health)	37.4	36.5	43.5	5.634	0.13

\* NA: The Chi-square test is considered not applicable when one or more of the cells had an expected <5 count.

These data are consistent with previous studies witch demonstrated that patients with depressive disorders diagnose have longer TD than those with other mental disorders<sup>15,20,21</sup>, and are also consistent with the judicial sentences analyzed in recent decades. The Superior Court recognizes depression as incapacitating disease and even recognizes permanent disability grant in those chronic, persistent and serious or severe depressive disorders in which there is comorbidity with psychotic symptoms or cognitive impairment<sup>22-26</sup>. Although some studies describes that psychiatric disability and medical comorbidity are associated to longer disability periods<sup>27,28</sup> this work find only a nonsignificant trend.

Sociodemographic (age, sex), labor (duration of the current TD) therapeutic (medication and the patient medical control: general practitioner, psychological or psychiatric on the private or public health) factors were not related to the conclusion on maintaining the TD.

These data differ from results of other studies that seem to attach more importance to personal factors or occupational history<sup>16,20,27-32</sup>. It has been reported that advanced age people <sup>29</sup> and female sex are associated with longer TD<sup>15,16</sup>. Works with lack of control, lack of participation in decisions, excessive demand and long hours, workload and high pressure, and a history of frequent TD or unemployment have been described as additional prognostic factors in several studies<sup>20,30-32</sup>.

Research on prognostic factors of disability associated with mental illness is less developed than on other diseases. Prospective studies and descriptive evidence review are scarce. This study provides knowledge to a field little studied: the work ability of psychiatric patients. It also includes a large sample of patients who were evaluated by psychiatric expert to assess their work ability for a year, according to various psychiatric disorders. However, we must consider some limitations. First, the sample includes patients psychiatric expert evaluations in only one autonomous region. In addition, no diagnostic or patients ability instruments were used, also there is a certain agreement about the lack of tools or methodologies to objectify the impact on working capacity of many psychiatric disorders, due to poor development of the theoretical foundations that support the development of evaluation instruments.

However, the data are representative of the clinical reality of the psychiatric experts labor, so they correspond to psychiatric diagnoses made by psychiatric experts, a fact that brings ecological validity to the results.

Knowledge of prognostic factors for functional recovery and return to work of people in TD brings a great interest to improve the approach to the disability situation. It is recommended to make a greater effort to prevent the excessive long term TD on the advance age people, optimize everything possible treatments to reduce the severity of mental pathology or make more intensive control on people with frequent short term TD. Acting on modifiable prognostic factors can impact positively on the duration of the TD and knowledge of those non-modifiable allows a better estimate of the duration and possible outcome of it.

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#### CONFLICT OF INTERESTS

No author has no conflict of interest for the present work.

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