STRESS IMPACT

Impact of Changing Social Structures on Stress and Quality of Life: Individual and Social Perspectives.

Irish Report on Work package 5

The Rehab Group

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Introduction

Long-term sickness absence has become a key issue in many European countries. Of particular concern has been the increase of the proportion of mental disorders in long-term absences. Across Europe it appears that stress and burnout are amongst the most frequently mentioned work related health complaints (Paoli, 1997; Merllié & Paoli, 2001; Weiler, 2004)). Stress and burnout are a major cause of absenteeism from work, costing society a substantial amount of money and causing people a great deal of worries and problems. The increase of mental disorders as a reason for absence and disability is particularly interesting, because the prevalence of mental disorders in the entire population has not increased (e.g. Singleton, Bumpstead, O'Brien, Lee, & Meltzer, 2001).
It is generally acknowledged that our society has changed considerably over the past decades. In particular structural changes, such as changing social and working contexts and the introduction of new technology are believed to be important change agents. These societal factors play a major role in the background contributing to the stress process, in the sense that these factors often constitute demands that exceed people's capacities to cope.

It is acknowledged that, although the group of long-term absentees is substantial, information concerning this group is scarce. Developing adequate return-to-work-policies does require information concerning these peoples' present living conditions, health, future perspectives and other factors that might influence their decisions concerning absenteeism and work resumption (e.g. Henderson, Glozier, & Holland Elliot, 2005). This project's aim is to fill (part) of that gap in the knowledge base on long-term absenteeism. Part of this project is a survey of long term absentees, enquiring after their experiences on being absent from work, their current health and living conditions, their job(s) before becoming absent, and future perspectives. This report describes the main findings of this survey.

1. Long term absence and Incapacity Benefit

In the various EU-countries the percentage of people claiming Incapacity Benefits (IB, or the national equivalent) has been on the rise over the last decade. Around 30 % of this group of people have been diagnosed with 'mental and behavioural disorders'. In most West European countries it has become the major reason for receiving incapacity benefits. Figure 1 shows this development in The Netherlands. The incidence of stress accounts for over 30 % of all absence from work and is the most frequent cited reason for absence from work, followed by musculo-skeletal problems. There was a sharp decline noticeable in 2003; this is most likely caused by a technical change in assessment criteria that took effect at that time. This explanation is supported by the steep increase in the category *other disorders* which coincides with the decline in *psychological disorders*. Other EU countries show a similar picture (Bergendorff et al., 2002). Some studies suggest that mental health problems are under-represented in the official statistics because they remain unrecognised or are 'disguised' by somatic complaints (Hensing & Spak, 1998; Stansfeld et al., 1995). There still seems to rest a taboo on mental health problems or psychological disorders.

Figure 1: Disability incidence rate by diagnosis in The Netherlands (Source: Workers Insurance Authority)
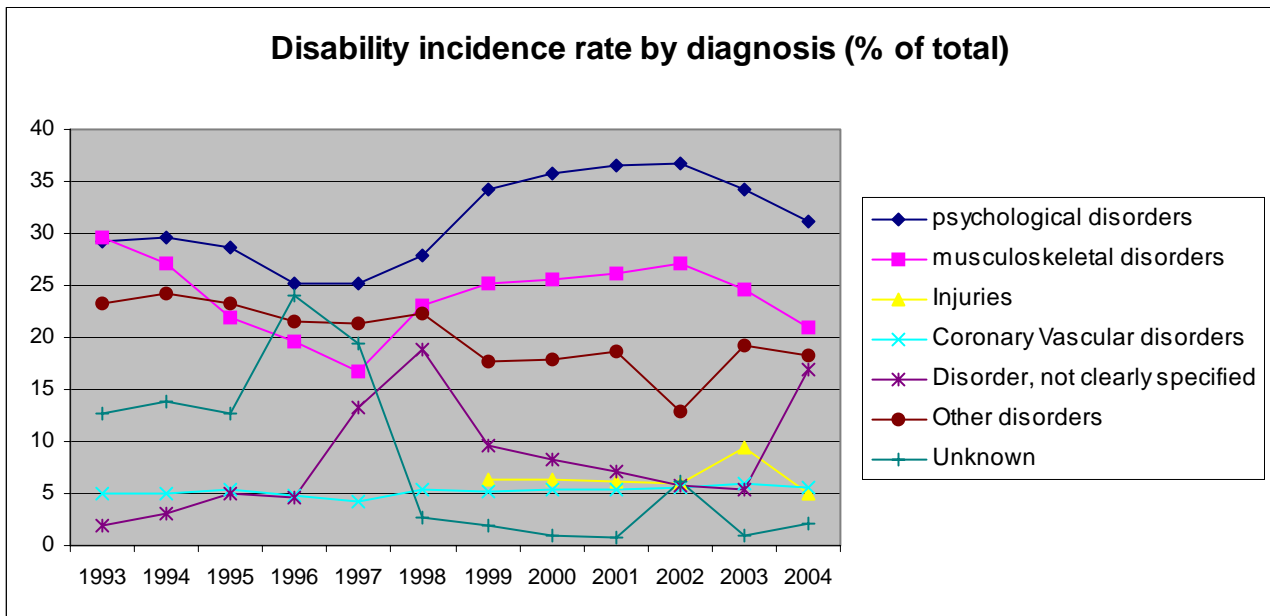
Governmental organisations in various countries have estimated that 30 – 60 % of all sickness absence is related to 'mental or emotional disturbances'. Therefore it is assumed that the majority of the people with mental and behavioural disorders actually have stress-related complaints. However, 'stress' is not an official diagnostic category, and it is therefore difficult to make an exact assessment of the number of incapacity benefit recipients who actually are suffering from stress.

Since registration systems for sickness absence and long term absence in various countries are not comparable, cross-national studies on this topic are difficult, and are only feasible by collecting specific information on this topic. There is little information available on long-term absentees. It appears that when people are absent from work, they also disappear from all kind of statistics. In order to be able to formulate adequate polices on return to work, it is necessary to 'know' who the people are who are absent, what kind of jobs they had, and so on. In particular, while most literature on intervention and rehabilitation strategies focuses on people with physical health (injuries, cardiovascular) problems, it is mental health problems that have been increasing in the last decade. However very little information is available on the best response to absence as a result of mental health problems. This lack of knowledge is part of the justification for this study. Another part is to provide a demographic profile and information on current health status, lifestyle, and employment.

Absence from work can signify many different problems, and therefore usually a distinction is usually made between frequency and duration of absence. Absence *frequency* has been associated with a 'voluntary' component of absence, indicating that the medical condition is a less compelling reason for absence, whereas absence *duration* has been seen as a measure of involuntary absence, which can be attributed to an illness or injury. Therefore, it is argued that long spells are better measures of health status than short spells, which are often also influenced by a number of other factors (Marmot et al., 1995). There are indeed differences between the determinants of short and long spells of sickness absence. For example, socio-economic class seems to be a strong correlate for long but not for short spells of absence (e.g. Vahtera et al., 1996). This is why in many studies short and long spells are studied separately. However, the cut-off point is usually somewhat arbitrary and depends on the registration policy of the country or the company studied. Some of the studies are not clear on their definition of absence, concentrate mostly on short leaves of absence, or use only spells of absence, without referring to their length, which makes the information of these studies difficult to incorporate into models of long term sickness absence.

This study is primarily interested in long term absence, which has been defined as lasting at least six weeks. However, for methodological reasons and due to the differences in national registration systems, Irish participants were recruited between twelve and twenty weeks.

1.1 Long-term absence, disability and stress-related disorders in Ireland

Ireland has a population of 3.6 million. It is the most youthful population in Europe with 41% of the total population under 25 years of age. In the general population it is estimated that 10% have personally experienced a mental illness and 73% of the population know somebody with a mental illness. (Mental Health Ireland 2005)

Table 1 below shows details of the population between 15 and 64 years that have a longstanding health problem including a mental illness. As can be seen from the table above mental, nervous and emotional conditions are the fourth most commonly cited type of health problem and account for 10% of all reported health problems in Ireland.

Table 1: Persons in Ireland aged 15 to 64, who have a longstanding health problem or disability, classified by type of longstanding health problem or disability (2004)

Health Condition	Number per 1,000	Percentage of Total
Heart or blood pressure or circulation	46.3	16%
Chest or breathing	41.1	14%
Back or neck	43.0	14%
Mental, nervous or emotional	30.5	10%
Legs or feet	26.6	9%
Other longstanding problem	24.4	8%
Arms or hands	18.6	6%
Stomach, liver, kidney or digestive	14.8	5%
Other progressive illness	15.7	5%
Diabetes	14.3	5%
Seeing difficulty	5	2%
Hearing Difficulty	4.5	2%
Epilepsy	6.6	2%
Skin conditions	3.9	1%
Speech impediment	1.5	0.003%
Not stated	1.4	0.003%
Total	298.3	100%

Source: Central Statistics Office

 In terms of absence from work due to ill health, the most recent statistics (2002) indicate that there were a total of 117,373 people or 3% of the population on disability benefit or disability allowance and who were unable to work due to disability or sickness. In terms of mental illness, a recent report concluded that from January to April 2005 a total of 13,609 people were receiving disability payments specifically for mental health problems. The same report noted that by April 2005 stress was the fifth most common reason for claiming Disability Benefit in Ireland (Sunday Independent 24/4/05). A survey conducted for Mental Health Ireland in 2001 found that 11% of adults reported that work stress interfered with their family life "a lot".

The Department of Social and Family Affairs has reported that once a person is receiving incapacity pay there is a high chance that they will not return to work within 5 years (Statistical Information on Social Welfare Services 2003). This results in people being sidelined both financially and socially and is therefore an important problem that must be addressed. A breakdown of the types of payment and the numbers receiving each type of payment is given in Table 2.

Table 2: Number of recipients in Ireland of Illness, Disability and Caring Payments

Payment Type	1998	1999	2000	2001	2002	2003
Disability Benefit	43,766	45,535	46,940	50,715	54,590	57,464
Invalidity Benefit	44,925	46,946	48,663	50,615	52,147	53,414
Interim Disability Benefit	439	514	488	449	404	295
Carer's Benefit			50	425	615	639
Disability Allowance	47,126	50,431	54,303	57,655	62,783	67,720
Carer's Allowance	11,416	14,387	16,478	18,785	20,395	21,316
Blind Person's Pension	2,358	2,304	2,229	2,125	2,095	2,061
Injury Benefit	746	748	828	861	828	821
Death Benefit Pension	630	662	665	676	668	664
Disablement Pension	10,182	10,577	10,925	11,230	11,612	11,898
Total	**161,588**	**172,104**	**181,569**	**193,536**	**206,137**	**216,292**

Source: Department of Social and Family Affairs

The issue of work related factors and how they may constitute a particular risk for mental health is discussed below.

1.2 Changing work life, stress and long term sickness absence

A review of the literature (cf. D'Amato & Zijlstra, 2003) has highlighted that work related factors can constitute a particular risk for mental health problems and stress. Such factors can include the organization of work, productivity issues, and personal relationships at work. A number of models and theories have been developed to describe and explain the etiology and epidemiology of stress (Cooper & Payne, 1988; Hobfoll, 1989; Holt, 1982; Kahn & Byosiere, 1992; Karasek & Theorell, 1990; Lazarus & Folkman, 1984; Sauter & Murphy, 1995). The most prominent of these nowadays include the job demands-job decision latitude model (Karasek, 1979), the Person-Environment fit model (French et al, 1982), the 'Transactional model' (Lazarus & Folkman, 1984) and the Effort-

Reward Imbalance model (Siegrist, 1996). In particular high work demands, job insecurity, and low level of job control seem to be risk factors for mental health problems. A variety of instruments have been developed to explore how these operate within a particular workplace (see e.g. Cox and Griffiths, 1994; Cox, Griffiths, & Rial-Gonzales, 2000; D'Amato & Zijlstra, 2003). Various parameters of stress, e.g. somatic, behavioural, emotional and cognitive are all moderately correlated to sickness absence (Nielsen et al., 2002). Psychological distress, both general and job related, predict increased absences irrespective of demographic variables (Hardy et al., 2003).

1.2.1 Health status and life style

Some of the strongest predictors of sickness absences are previous spells of absences and previous ill health (Andrea et al., 2003; Farrel & Stam, 1988). Self-rated health status is a good predictor of sickness absences (Marmot, 1994). Lifestyle factors, such as overweight, smoking and sedentary lifestyle are strongly associated with sickness absence, but not alcohol consumption (e.g. Kivimäki et al.,1998; Ala-Mursula et al. 2002). Sleep appears to have a beneficial effect on recovery from illness, in particular quality of sleep appears to be associated with good health (cf. Groeger, Zijlstra, & Dijk, 2004).

1.2.2 Demographic aspects

Various demographic aspects have been found to be associated with sickness absence. In general there is a clear relationship between age and health: older people have more health complaints. However, in the workforce this relationship is not always clear, due to either sampling strategy, self-selection of 'healthy workers', but the general tendency is that age increases the risk for long-term absenteeism (Bergendorff et al., 2002).

Also socio-economic class is related to sickness absence (e.g. North et al., 1993; Fuhrer et al., 2002), sickness absence rates are lower for people with a higher education (Ala-Mursula et al., 2002). The greatest divide seems to be that white-collar (non-manual) workers are less absent than blue-collar (manual) workers. This trend can be seen in many European countries and in various sectors of employment (Alexanderson et al. 1994; Benavides et al, 2003; Fuhrer, et al. 2002). However, there seems to be a relationship with the type of the complaints. Psychological problems seem to be over-represented among white-collar workers, whereas blue-collar workers have more physical problems (Riksförsekrinsverket, 2002). Public sector workers have a higher ratio of long-term absences than private sector workers (Riksförsekrinsverket, 2003; Bergendorff et al., 2002). There is some evidence that large organisations have higher rates of absence than smaller ones (Voss et al. 2001; Vahtera et al. 1997).

According to a number of European studies women have a higher level of absence due to sickness than men (e.g. Bergendorff et al., 2002; North et al., 1993; Niedhammer et al., 1998; Voss et al., 2001). However, no satisfactory explanation has been found thus far.

There seems to be very little evidence that the so-called double burden of family and work increases sickness absences in general (Ala-Mursula, 2002; Sonnentag & Zijlstra, in press). Having a family, and number of children do not seem to be risk factors for absenteeism as such. It should be noted, however, that most studies are cross-sectional, meaning a healthy worker selection only within the women with (care for) children. Hardly any longitudinal studies have been performed. Also, self-reported absence has been associated with having young children (i.e. under six years) and with difficulties with childcare (Eriksen et al., 2000). These factors also moderated the association between burnout and absence. This suggests that having a family has both positive and negative effects on sickness absence and that excessive strains due to family responsibilities may result in absenteeism or at least increase the risk of stress related illnesses.

This question, whether (or to what extent) stress arises from work or from other life domains, has been a topic of debate among policy makers, employers and trade unions for some time now. The answer to this question would have implications for determining the level of responsibility of various parties, and therefore also for their costs to solve the problem, and the policies to be put in place. However, it may very well be that this question can, as a matter of principle, not be answered. The various life domains (work and non-work) constitute different kind of demands, and it will be very difficult to assess which factor contributes at a particular moment to peoples' levels of stress. Moreover, the relevance of the various factors/demands will vary over time, and be related to peoples' career and stage of life.

This can probably best be illustrated by using the metaphor of a bucket that is filled with water from different taps. At some point the bucket will be full and the water will spill over if no water is taken out. It will be difficult to assess which tap (or even which drop) actually causes the bucket to spill over. It will be equally difficult to ascertain, when people are confronted with various demands (from different life domains), which of the demand(s) is most responsible for the stress. In fact all demands contribute to the stress and if there is no alleviation in one of the life domains it is likely that the demands will exceed the persons capacity to cope with these demands and they are likely to be perceived as a threat.

However, the most constant and notable demand across the board are the demands from work. Work demands are aspects from the public domain for which an employer has a responsibility, in contrast to aspects of the private life domain. Moreover, work demands can be changed, but many stressors from daily life (divorce, bereavement, etc.) cannot be prevented. Nevertheless, the issue of stressors from work and private life domains will have to be addressed in this study; therefore, from a conceptual point of view, aspects of various life domains need to be included in the conceptual framework for this study.

Another reason to look into the topic of 'return to work' is that the work force in Europe is ageing and in order to sustain the productivity at work in Europe, and retain the level of welfare for all Europeans, as many workers as possible should be retained at work. Also the costs of social security systems in most European countries need to be reviewed in order to be sustainable. This means that from a public expenditure perspective our society cannot afford to leave potentially productive people in a state of economic inactivity. Equally, the individual psychological costs of being excluded from participating in society are unacceptable and must be redressed.

This project has been motivated by an acknowledgement that we do not sufficiently understand the general process that affects workers' decisions to either report sick or resume work again. In essence the study has sought a better understanding of the influence of national systems and their (in)effectiveness on return to work of long term absent employees, and thus the retention of workers for the labour force.

1.3 The Conceptual model for this study

Sickness absence, but also work resumption, can be conceived as the result of a decision making process. People decide to stay at home and not go to work for a particular reason, usually because they feel that they are unable to work, or to deal with the demands of work. This decision making process can be conceived as passing a threshold (cf. Allegro & Veerman, 1998). Our expectation is that there will be a variety of factors influencing this decision. Evidently people's health will be one of these factors, but probably not the only factor. Other factors that might be relevant are the 'opportunity' to be absent (or the necessity to go to work – feeling indispensable), but also the 'necessity' to stay at home (family situation) may play a role. Likewise people need to make a decision (i.e. pass a threshold) in order to return to work again. And again a variety of factors are believed to influence this decision, amongst which health will play an important role.

This project aimed to explore what factors influence peoples' decision to pass the threshold of reporting absent, and also resuming work again, and their relative weight in this process. This evidently includes looking into work-related factors and personal circumstances, and also into what kind of interventions have taken place. The conceptual model that has been developed can provide some guidance here.

Figure 2: Conceptual model of threshold
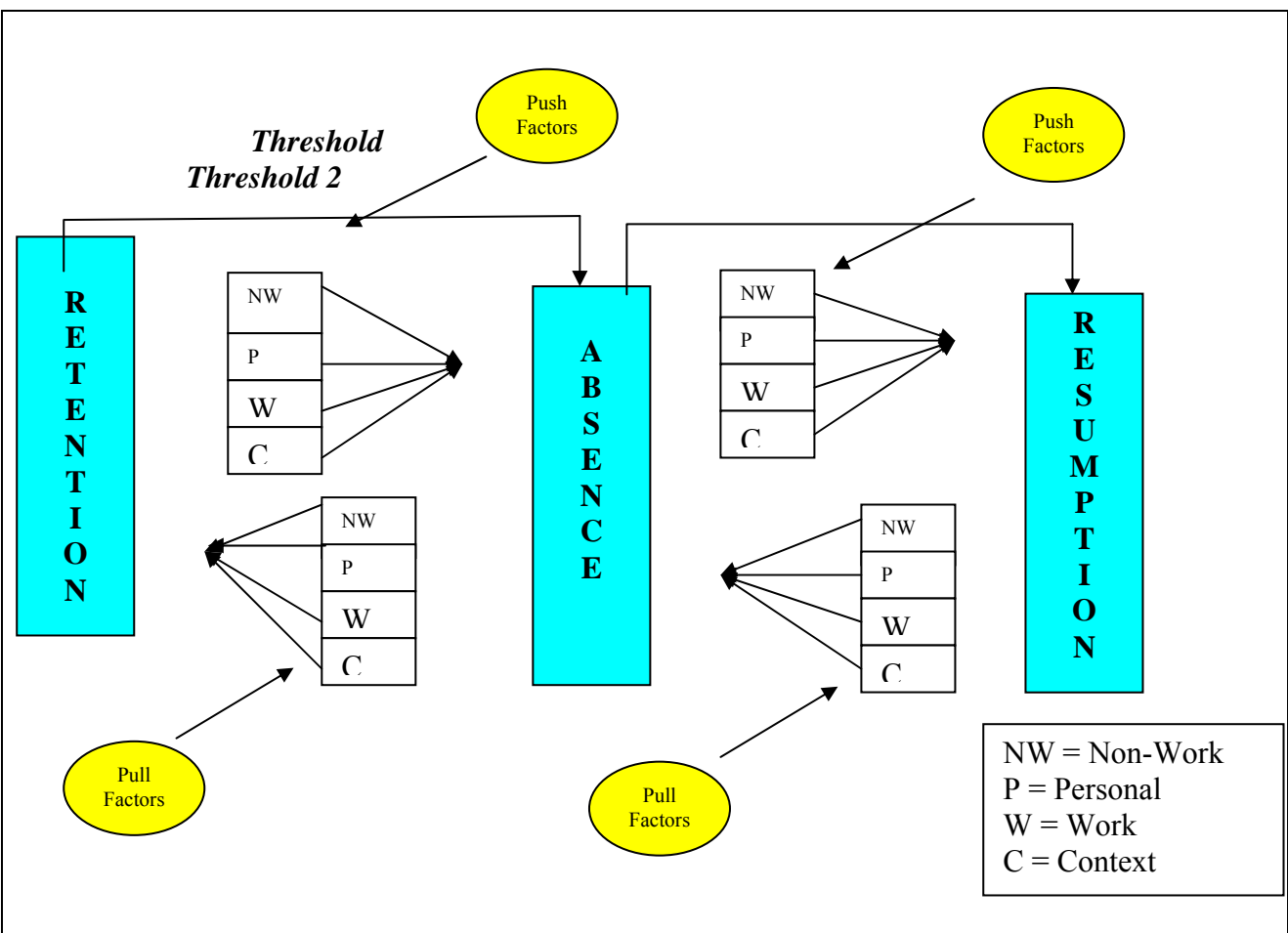
The conceptual model represents the various classes of variables that need to be taken into account. There are factors related to the personal characteristics (personality, health situation, life style, social economic class), to people's work situation (type of organisation, job characteristics, social support, etc.), the non-work domain which includes the family situation and social network, and context variables such as financial situation, geographic location, but also what (health) services are available, etc.

The model is presented as a 'push and pull' model, indicating that some factors will 'push' people away from work (into absence) and other factors will 'pull' people into work (away from absence). Whether a particular factor will actually work as a 'push' or a 'pull' factor is not always clear for

some factors but for others it is possible to propose an impact. For example, poor job characteristics and unhealthy work situations will generally contribute to people becoming absent from work, or rather 'push' people away from work. On the other hand, interesting and satisfying work and feeling valued and indispensable will generally help people to stay in their work, i.e. 'pull' people to work. When an individual has to make a decision concerning staying at home (i.e. reporting sick) or going to work, it is conceivable that various factors will exert different influences upon that individual. These factors will originate from the various life domains and will affect the threshold people will have to take between work and absenteeism.

Of course, peoples' estimate of their own working capacity to deal with the demands of work is relevant as well with respect to their decision, and this, together with their motivation, is likely to affect their future perspectives. Therefore these elements need to be included in the survey.

The main goal of this survey is to provide a description of the most relevant characteristics of the group of people who are long-term absent from work for stress-related reasons. Implicit in this aim is to make a comparison between the groups of people with (stress-related) mental health problems and those absentees that have other than mental health (i.e. physical health) problems, or the group that has both type of problems (co-morbidity).

A second aim is to determine which factors are likely to influence their decision to report absent from work and/or to return to work.

1.4 Mental health and stress-related disorders

The first aim of this study implies that a distinction needs to be made between 'mental health' versus 'non-mental health' problems. However, first it is useful to clarify the distinction between 'stress' and 'mental health'. The term 'mental health problems,' refers to psychological disorders of a clinical nature (more or less severe), and includes a much wider group of 'patients' than we are targeting for stress impact. The problems these people have are not necessarily stress-related, and may be dispositional, or resulting from a trauma. On the other side of the spectrum are the mental health problems related to stress and burnout. Stress and burnout are closely related constructs and the distinction between them is somewhat unclear. Nevertheless, they both relate to situations in which people have been over-stretched for a long period without sufficient opportunities to recover from the strains that have been put upon them. This results in a dysphoric and dysfunctional state in individuals, often without major psychopathology (Bril, 1984; Schaufeli & Enzmann, 1998).

Typical characteristics include high levels of (emotional or psychological) exhaustion, and feelings of reduced personal competence, or self-efficacy, accompanied by depressive feelings. This prevents people from functioning adequately in their job, and from using appropriate coping strategies, thus causing a negative spiral. People are at risk when they perceive a chronic imbalance between their input (effort, time) and the output (material and immaterial rewards) in their work (Siegrist, 1996, Schaufeli, et al., 1993) and usually do not recover from this situation without outside help or environmental rearrangement (Brill, 1984). Part of the aim of this survey is to make an inventory of the services that these people know of and to what extent they are being used. And subsequently what services and/or interventions are helpful in people returning to work.

This study takes place in five different EU countries. In each of these countries the same methodology and instruments have been employed. A questionnaire has been designed of which the raw skeleton would be applicable and useful in each country. When necessary, minor country specific amendments to the questionnaire have been made.

To summarize, the key questions to be answered in this survey are:
1) What are the demographic characteristics of long-term absentees?
2) What are the psychological characteristics of long-term absentees?
3) Which factors (including availability and use of services, etc.) contribute to predicting absenteeism, and/or work resumption?
4) To what extent can people who are absent for stress-related reasons (mental health problems) be differentiated from other long-term absentees? This differentiation should include other than demographic factors, i.e. life style, general health, job characteristics, psychological aspects, etc.

2. Method

To answer the above questions it was decided that a survey would be the most appropriate method for data collection. A survey enables the collection of a large amount of data in a standardized way. A questionnaire was developed that was administered in all participating countries to a national representative sample of Long Term Absentees (LTA).

2.1 Sampling related aspects

Figure 3. Sampling timeframe in different countries

Days since the start of absence during the various measurements
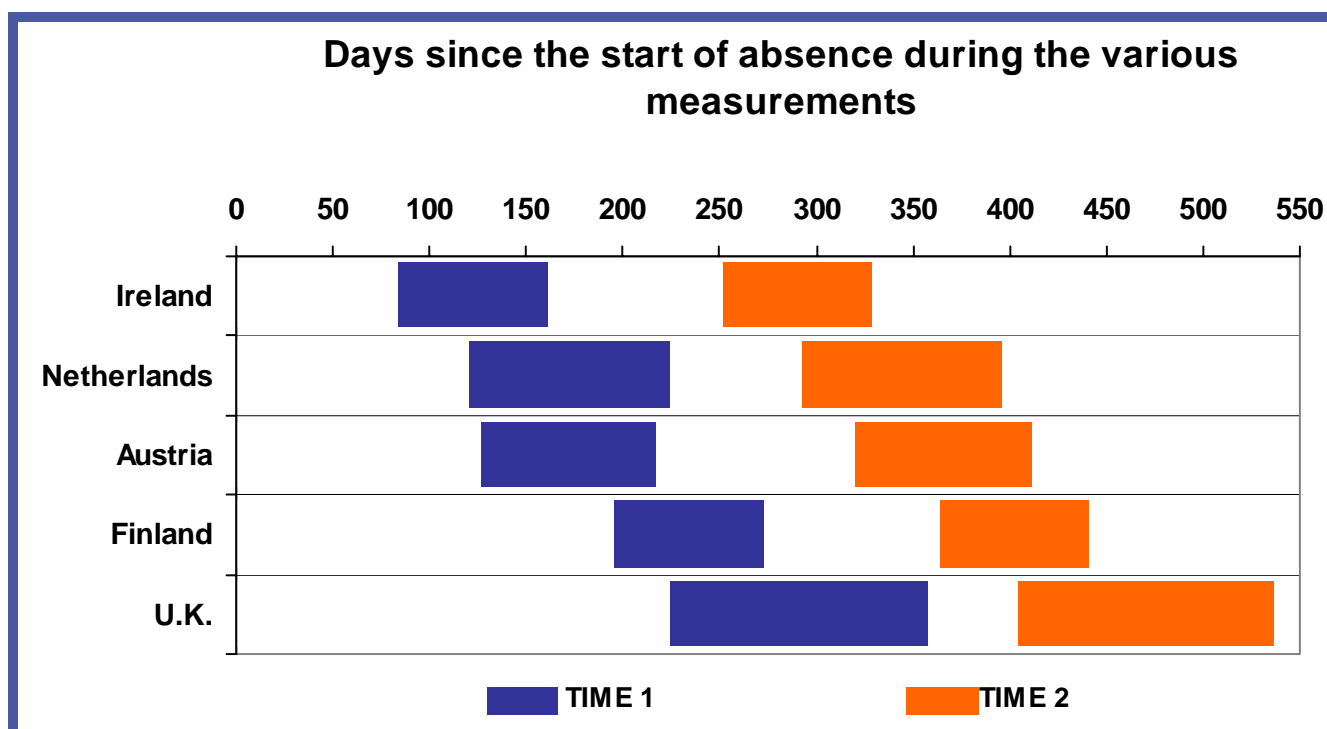
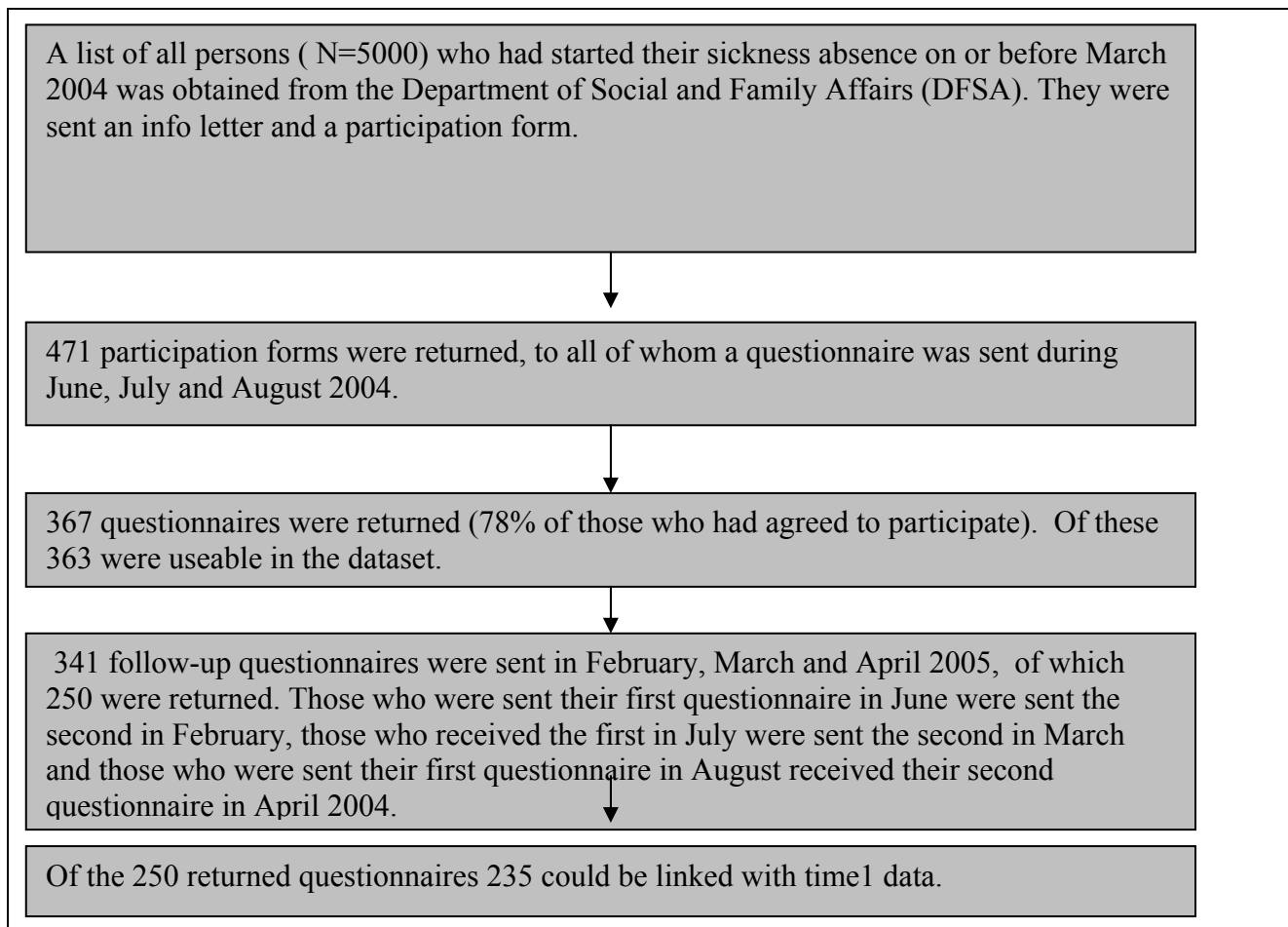**Note.** The boxes represent 80% of the cases.

2.1.1   Description of the register from which the sample is drawn

The sample was drawn from the register of those receiving Disability Benefit, a payment made to those in Ireland who are aged under 66 and incapable of work because of illness and have sufficient social insurance contributions.

2.1.2   Sampling Procedure

The Sampling procedure used is outlined below

Figure 4. Sampling procedure in Ireland

A list of all persons (N=5000) who had started their sickness absence on or before March 2004 was obtained from the Department of Social and Family Affairs (DFSA). They were sent an info letter and a participation form.

471 participation forms were returned, to all of whom a questionnaire was sent during June, July and August 2004.

367 questionnaires were returned (78% of those who had agreed to participate). Of these 363 were useable in the dataset.

341 follow-up questionnaires were sent in February, March and April 2005, of which 250 were returned. Those who were sent their first questionnaire in June were sent the second in February, those who received the first in July were sent the second in March and those who were sent their first questionnaire in August received their second questionnaire in April 2004.

Of the 250 returned questionnaires 235 could be linked with time1 data.

2.2 Sample profile

2.2.1   Characteristics of Respondents and reason for absence

The characteristics of respondents and the reason for absence are presented in Table 3. There were more female respondents to the survey than males (57% vs. 43%). Respondents were distributed pretty evenly across age groups. 70% indicated a physical condition, 17% indicated a primarily mental condition and a further 13% indicated both a mental health and a physical condition. 50% of respondents considered themselves to be in good health. At the time of the first survey, 87% of respondents had been absent for less than 24 weeks. 62% indicated that the reason for absence had a gradual onset. 53% indicated that they 'could see it coming'. A substantial minority (42%)

indicated no second level certificate. The majority of respondents (63%) were married and 42% had children.

Table 3 Characteristics of respondents and the reason for absence

Gender	Male	43%		Reason for absence	Mental	17%
	Female	57%			Physical	70%
					Co-morbid	13%
Age	<=35	22%				
	36-45	27%		Health	Very bad	50%
	46-55	28%			Good	50%
	>55	24%				
				Length of absence	0-24 weeks	87%
Marital status	Married	63%				
	Cohabiting	6%			25-34 weeks	3%
	Single	19%			35+ weeks	10%
	Divorced	9%				
	Widowed	2%		Event related	Yes	38%
					Gradual	62%
Children	No	58%				
	Yes	42%		Could see it coming	Yes	53%
Education	Primary	42%			No	47%
	Junior Certificate	21%				
	Leaving Certificate	7%				
	Technical	13%				
	Third level	12%				

2.2.2   Characteristics of the job from which respondents were absent

Table 4 presents the characteristics of the job from which respondents were absent. 73% indicated that they worked in the private sector, 21% specified public sector employment and 6% for non-profit organisations. 31% of respondents worked in unskilled occupations and 24% in services. Over 50% of respondents worked for small companies of under 50 employees (55%). A quarter of respondents earned less than €900 a month, 44% earned between €900 and €1800 a month and 32% earned over €1800 a month. 74% of respondents indicated that their job was being held open for

them at least for 6 months. 25% of respondents did not know whether or not their job was available. By far the most frequent professional contact reported was with the GP (96%). 23% of respondents reported allied health interventions such as physiotherapy. 15% indicated contact with occupational health services. 13% indicated receiving rehabilitation. The majority of respondents reported some contact with their employer, 15% with a manager, 57% with a supervisor and 58% with colleagues. 28% of respondents indicated that the employer had someone responsible for co-ordinating their return to work.

Table 4 Characteristics of the job from which respondents were absent

Sector	Private	73%	Job held open	No	21%
	Public	21%		0-6 months	14%
	Non profit	6%		>6	40%
				Don't know	25%
Job level	Senior managers Professionals	18%	Professional contact	GP	96%
	Technical	10%		Occupational Health	15%
	Clerical/administration	10%		Rehabilitation	13%
	Services	24%		Mental Health	15%
	Trades	8%		Allied Health	23%
	Unskilled	31%			
Size of workforce	1-10	27%	Employer contact	Manager	15%
	11-50	28%		Supervisor	57%
	>50	45%		Colleagues	58%
Average monthly income	<€899	25%	Return to work co-ordinator		28%
	€900-1799	44%			
	>€1800	32%			

2.3 Breakdown variables

Three variables are used in breakdown tables as divisional variables (see Appendix A). The first is "stress" or general psychological morbidity, which was constructed on the basis of three factors of mental functioning i.e. emotional exhaustion, depression, and general self-efficacy.

The second breakdown variable is the self-reported main reason for sickness absence. The respondents were asked whether the main reason for their absence was a physical illness, a mental illness or a combination of a physical illness and mental illness. This distinction was validated against the physician diagnoses the respondents indicated they had from a list of medical diagnoses.

The third breakdown variable, which was also used as an outcome in logistic regression, was Return To Work at Time 2. The respondents were asked to indicate whether they had 1) returned to work completely 2) returned to work partially or on a therapeutic basis or 3) not returned.

The significance of the variables in the breakdown tables is marked so that if the difference is statistically significant AND the estimate for effect size $r > .1$ there is a triangle next to the category that differs. The direction of the triangle indicates also the direction of the difference. Every marked group is significantly different from the other and/or the comparison group(s). All comparisons are made 'horizontally', i.e., per row. ▲: $p < 0,05$ for significantly high 'scoring' groups; '▼' for significantly low 'scoring' groups.

There are three different types of variables used in the breakdown tables and logistic regression, first nominal categories (e.g. gender), second yes/no dichotomies (e.g. do you have children under 18 living in the household) and third trichotomies (low, medium, high), which were made for the scales and other continues variables (e.g. depression) based on tertiles of the total sample population of five countries.

3.　　Results

3.1 Main reasons for absence and levels of stress

3.1.1　　Demographic characteristics

Gender

Males scored significantly higher in the low stress than any other stress category. Females scored significantly lower in this category than any other category.

Age

People aged 35 years or younger had significantly lower levels of physical illness than other illnesses but reported significantly higher levels of co-morbidity, i.e. both physical and mental illness. This age group were also more likely to be in the high stress group. People in the 36-45 year age gap were more likely to report mental illness than other illnesses. They scored significantly lower in the low stress category than in the medium or high categories suggesting medium to high levels of stress overall. While people in the 55 plus age group were least likely to report a mental illness, they were the most likely to have a physical illness. They scored significantly lower in the high stress category than other categories and highest in the low stress category. This would suggest relatively low levels of stress in general for this age group.

Education

Those who completed second level only were more likely to report that they had both physical and mental illnesses rather than a physical or mental illness alone. They also scored significantly higher levels of stress in the medium stress category than any other level of stress.

Marital Status

In terms of marital status married people were most likely to have a physical ailment but least likely to have co-morbid status. Married people also showed significantly less stress high stress category than in the other two stress categories. Conversely single people were least likely to have a physical illness but most likely to fall into the co-morbid category. They scored significantly lower in the low stress category than any other stress category.

Living alone or with other people

People living alone showed significantly higher levels of stress in the high stress category and less people who lived alone reported low levels of stress in the medium category than would have been expected by chance. People living with one or more other people showed significantly higher levels of stress in the medium category but they were less likely to fall into the high stress category than other stress categories.

Multiple Income

People who do not have a multiple income were most likely to fit into the high stress category and least likely to fall into the medium stress category. Those with a multiple income tended to be in the medium stress category and were less likely to be in the high stress category.

Personal average monthly income:

People with a personal average monthly income of less than 899 Euro scored the highest in the medium stress category and lowest in the low stress category. In other words these people were more likely to suffer high levels of stress than medium or low levels of stress. They were least likely to suffer low levels of stress. People who had a personal average income of 1800 or more scored highest in the low stress category.

3.1.2 Job characteristics

Job Title (ISCI-88 Classification)

There weren't many differences observed in terms of reasons for absence and stress levels although there were a few. These are reported here. Legislators, senior officials and managers showed less stress in the medium stress category than all other stress categories. While technicians and associated professionals showed the least stress in the high stress category they also scored the highest in the medium stress category.

Of the three categories for reason for absence, physical, mental or co-morbid, clerks were more likely to report mental illness as the main reason for absence. Skilled agricultural and fishery workers were more likely to fall into the co morbid group than the physical or mental group.

Contract hours per week

Those people who worked between 36 and 40 hours were significantly more likely to be absent due to mental illness than any other type of illness. In fact of the people who said their main reason for absence was a mental illness, 61% of these worked between 36 and 40 hours per week.

Job Tenure:

People who have been in their jobs between 0 and 20 years were least likely to have a physical illness. This is not surprising as these people are probably quite young. This group also showed more stress in the high stress category than any other stress category. They showed the least stress in the low stress category. People with tenure of 21-30 years scored highest in the medium stress category with those of tenure of 31 years or longer scoring highest in the low stress category and lowest in the medium stress category.

Work Sector (NACE classification)

Participants in the building industry showed higher levels of stress in the low stress category than any other category. Public administration were more likely to be absent due to a mental illness than they were to be absent for mental or a physical and mental illness together. People in the health sector showed the highest level in the moderate stress category.

Size of workplace

Workplaces with under 10 employees reported the highest level of stress in the low stress category. People in organisations with 11-50 people reported most stress in the moderate stress category. There were no significant differences in stress levels or reason for absence found in employees who worked in organisations of 50 or more people.

3.1.3 Psychosocial work factors

Job demands

Those with low job demands were most likely to be absent for physical reasons and least likely to be absent due to an illness that was both physical and mental in nature. They tended to fall into the low stress category more often than the other categories and of the three stress categories they were least likely to show up in the high stress category. Those with medium level job demands were most likely to be out of work due to a mental illness.

Those with high job demands experienced significantly more stress in the high stress category than any other category. This suggests that overall those with high job demands tend to be highly stressed. These people were also more likely to be absent for both physical and mental reasons (co-morbid) than just a mental or physical reason alone. They were the least likely to be absent for physical reasons alone. To put it another way they were more likely to be out due to a mental illness

as opposed to a physical illness. They were even more likely to be out for an illness that fell into the co-morbid category.

Job control

Those with the lowest level of control experienced most stress in the high stress category and were more likely to be absent due to mental illness than any other illness. They were least likely to be absent for physical reasons. Those with medium levels of control scored significantly lower in the high stress group than they did in any other stress group.

Those with high levels of control fell into the low stress category more often than would be expected by chance and they fell into the high stress category less often than would be expected by chance. This suggests that people with high levels of control tend to have quite low levels of stress. In fact of all the people who showed high levels of stress 64% of these reported having a low level of control in their job.

Co-worker support

Those with low levels of support were significantly more likely to be absent due to mental health problems than other health problems and least likely be absent due to physical problems alone. They were more likely to be highly stressed than they were to have low or medium levels of stress. In fact they were less likely to show low levels of stress than any other level of stress.

Those with medium levels of co-worker support reported significantly less stress in the high stress category. When they showed stress they tended to fall into the low stress category. However they were more likely to be absent for physical reasons than the other groups. There were no significant differences found for people with high co-worker support in terms of reason for absence or stress level.

Supervisor support

This yields a similar picture to co-worker support. Those with low levels of support were more likely to be absent due to mental health problems and they scored significantly higher on stress in the high stress category than any other stress category.

Those with medium levels of support scored highest in the low stress category but lowest in the high stress category. People with high levels of supervisor support also showed low levels of stress, they were more likely to show low levels of stress than they were to show medium or high levels.

Over-commitment

Those who reported a low level of over-commitment were less likely to be absent for mental or co-morbid reasons but more likely to be absent due to physical illness. They scored highest in the low stress category and lowest in the high stress category. Those with a medium level of over-commitment were significantly less likely to show high levels of stress than they were to show low to medium levels.

Those with high levels of over-commitment were more likely to be absent due to mental or both mental and physical problems than they were to be absent for physical problem alone. Of all the people who were absent for a mental illness 63% of these were shown to be overcommitted to their work. 55% of people falling into the co-morbid category were shown to be over-committed. Also of all the participants falling into the high stress category an extremely high number (70%) were overcommitted.

Job reward

Those with low levels of reward were most likely to be absent due to mental health problems and least likely to be absent due to physical health problems. They were more likely to show up in the high stress category than would be expected by chance. Those who reported medium levels of reward were less likely to be absent due to mental health problems than other illnesses. Those with high reward fell into the low stress category more often than other stress categories, in fact they were less likely to fall into the high stress category than any other category. Of the three categories for main reason for absence they were most likely to be absent for physical illness and they were least likely to fall into the co-morbid category.

Job insecurity

There were no significant differences in relation to reason for absence and job security. Those with high job insecurity were significantly more likely to suffer from high levels of stress than low or medium levels. Conversely those with low levels of job insecurity were less likely to show high levels of stress than medium or low levels.

Job Satisfaction

Those with low job satisfaction were more likely to be absent for both physical and mental health problems and least likely to be absent due to physical health problems alone. This group experienced high levels of stress falling into the high stress category more often than any other

category. Of all the participants who were highly stressed 69% showed low levels of job satisfaction.

Those with medium levels of job satisfaction were most likely to be absent for a physical reason and they were less likely to fall into the co-morbid category than the other two categories of physical or mental alone. They also fell into the high stress category less often than would be expected by chance suggesting that in general they tend to experience low to medium levels of stress. In terms of high job satisfaction the only significant differences were found in relation to stress. These people seem to generally experience quite low levels of stress – they were found in the low stress category significantly more often than the other two categories and they were least likely to show up in the high stress category.

3.1.4   Lifestyle characteristics

Working hours of partner/spouse

Those people who reported that their partner's or spouses working hours had not changed at all were less likely to be absent for mental health reasons than for physical illness or for illness that are both physical and mental in nature. This group also showed low levels of stress – they fell into the low stress category significantly more often than other stress categories and they were in the high stress category less often than other categories.

Those who reported that their spouses or partners working hours had increased were most likely to be absent for a mental health problem and least likely to be absent for a physical health problem. They also showed high levels of stress more often than other levels of stress.

Alcohol Consumption

Those people who reported that their alcohol consumption had decreased since they became absent were the least likely to be absent for a mental health problem. In fact those people who reported that their alcohol intake had increased were more likely to be absent for a mental health reason than any other reason. They were least likely to be absent due to a physical illness. The only other significant relationship observed in terms of alcohol consumption was that those people who reported no change in their alcohol consumption were more likely to show low levels of stress than they were to show moderate or high levels of stress.

Smoking

Those who said that their smoking had decreased since their absence tended to be absent for physical reasons, they were less likely to be absent for mental health reasons than any other category of illness.

Those who noticed no change in their smoking were more likely to fall into the physical health category and least likely to be absent for mental health reasons. They also fell into the low stress category more often than one would expect by chance and conversely they were less likely to fall into the high stress category than all other stress categories.

For those who reported an increase in smoking they were most likely to be absent due to a mental illness and least likely to be absent for a physical illness. They also showed high levels of stress falling into the high stress category significantly more often than other stress categories.

Eating

Those who reported a decrease in their eating fell into the co morbid category more than would be expected by chance. They were least likely to fall into the physical illness category. More people who reported a decrease in their eating showed high levels of stress than low or medium levels of stress. In fact they were less likely to fall into the low stress category than any other category. Again, eating is probably only a small part of this picture and reason for absence may be the variable playing the bigger part in predicting stress levels.

People who reported no change in their eating habits were more likely to be absent for physical reasons than other health reasons. They showed up in the low stress category most often and the high stress category least often.

The only difference observed for people who reported an increase in their eating was in relation to reason for absence. They were most likely to be absent for mental health reasons and least likely to be absent for physical reasons.

Social relationships within the home

The results show that people with mental illness or a mental and physical illness seem to have less contact and poorer quality relationships than those with physical illness alone. As social support is seen as important in helping people with mental illness recover this is an important issue.

Sleeping problems

People with little problems sleeping were most likely to be absent for a physical reason and least likely to fall into the co morbid group. Not surprisingly these people fell into the low stress category significantly more often than would be expected by chance and the high stress category significantly less than would be expected by chance. This suggests that overall people who report few sleeping problems show low levels of stress in general.

People who reported having major sleep problems were found to be in the mental health group more often than any other category. They were least likely to be in the physical group. They were found in the high stress category more often than any other category. Furthermore, of all the stress categories they were least likely to show low levels of stress.

3.1.5   Health condition

General Health

Those who said their health was very bad were more likely to fall into the co morbid category than they were to fall into the mental health or physical category. Conversely those who felt their health was good were less likely to fall into the co morbid category than any other category. People who saw their health as very bad showed high levels of stress more often than other levels of stress and they were significantly less likely to be found in the low stress category.

Illness caused by work

Those who reported that they were absent due to an injury from an accident gave their main reason for absence as being due to an illness of both a physical and mental nature. They were least likely to report that they were out for a mental health problem alone.

Those who said their illness was caused entirely by work were more likely to fit into the mental or co-morbid categories rather than the physical categories. They were significantly more likely to suffer high levels of stress in the high stress category.

Depression (CES-D Scale):

People who scored low on this scale tended to be in the physical category rather than the co-morbid or mental health categories. There were also significantly more people with a low score in the low stress category but less in the medium and high stress categories. People who scored a medium level on this scale tended to score highest in the medium stress category. Those with a high score on

the depression scale were most likely to fit into the mental health category and more likely to show high levels of stress in the high stress category than other stress categories.

Exhaustion (OLBI-scale)

Those scoring low on exhaustion were more likely to be in the physical category and more likely to score highest on the low stress scale. They tended to score less on medium and high stress categories. Those with a medium level of exhaustion tended to report high levels of stress in the medium stress scale. Of those suffering from high levels of exhaustion there were statistically more of these people in the mental health and co-morbid groups than the physical groups and they were also more likely to fall into the high stress category.

Disengagement (OLBI-scale)

Those with low levels of disengagement were most likely to be absent for a physical illness and to fall into the low stress category. They were least likely to fall into the high stress category. Those with high levels of disengagement were most likely to belong to the mental health or co-morbid group and they were also more likely to suffer high levels of stress rather than low levels of stress.

General self-efficacy

Those with low self-efficacy tended to be absent for either a mental or co-morbid reason and they were most likely to score high rather than low in terms of their stress level. People with medium self-efficacy tended to show a medium level of stress. Of those who had high levels of self-efficacy they tended to be absent for physical problems only and when they were stressed they were more likely to fall into the low stress category.

Stress measure

Those with low levels of stress were most likely to be in the physical category than the other groups. Those with high levels of stress tended to be either in the mental health or co-morbid category. In other words there were less people with high levels of stress in the physical category than the other categories.

Work ability

Those who felt they were incapable of work (i.e. they scored less than three on a 10 point scale with 1 being not able to work at all and 10 being fully able to work) tended to be found in the high stress group more often than other stress categories.. Those who had an optimal level of workability i.e. a score of 6 or greater were more likely to be suffering lower levels of stress rather than higher levels.

People who reported that their physical ability to work was low were significantly less likely to have a mental illness than to have a physical illness or to fall into the co-morbid category. Those people with low physical work ability were most likely to be in the high stress rather than the low stress categories. Those with high physical work ability tended to be absent for mental health reasons as opposed to physical or co-morbid. They also tended to score highest in the high stress category indicating that this group experience very high levels stress. Those with low mental work ability were likely to be absent either for a mental or both a physical and mental illness (co-morbid). They tended to have high stress levels. Those with high mental work ability tended to have a physical illness only and when they did feel stress it tended to be in the low stress category.

Number of previous absences

Those people who reported previous absences as being either never or once or twice were most likely to be absent at the time of the study due to a physical illness only. They were much more likely to suffer from low levels of stress than high levels of stress. People who were absent 3 or more times were significantly less likely to have a physical illness than the other categories of illness. They were also more likely to suffer from high levels of stress.

Time of previous absence

Those whose previous absence was less than two weeks were most likely to now be absent due to a mental health issue and least likely to fall into the co-morbid group. Conversely, those whose previous absence was over 4 weeks were least likely to have a mental health problem and most likely to fall into the co-morbid category.

Length of current absence

Those whose absence was 24 weeks or less were significantly less likely to be in the co-morbid group than the physical or mental groups. Those with such a short spell of absence were less likely to fall into the high stress categories than they medium or low level stress categories. Those with an absence of 35 weeks or more were more likely to fall into the co-morbid group and also to suffer high levels of stress.

Main reason for absence

Those who were absent for mental health problems were more likely to fall into the high stress category than the lower stress categories. The physical group had a tendency to fall into the low stress category and were least likely to belong to the high stress category. The co-morbid group

were more likely to belong to the high stress category and least likely to show up in the low stress category.

Sources of income

In terms of sources of income this did not seem to be related in any way to the reason for absence or to the levels of stress except for where the main source of income was spouses or partners income. In this case those who did not have a partners income to rely on were more likely to have high levels of stress than low levels. Those with a spouses or partners income were less likely to show high levels of stress than other levels of stress.

Job position held open

Of the people whose position was not held open most of them fell into the mental illness category. Those people whose jobs were not held open were significantly more likely to be in the high stress category than the low or medium stress categories. Those whose position was held open but for less than 6 months were most likely to be in the physical category and least likely to be in the co-morbid group. They were most likely to show low levels of stress and least likely to show high levels of stress. For those whose job was held open for more than 6 months they were most likely to be absent for a physical reason and of the three stress categories they fell into the low stress category most and the high stress category least. Those who did not know if their position was held open were more likely to fall into the co morbid group and least likely to be absent for a physical reason. They were significantly more likely to show high levels of stress than medium or low levels of stress.

3.1.6   Services and Interventions during Absence

Contacts with psychiatrist or psychologist

Unsurprisingly those who did not see a psychiatrist or psychologist were less likely to be in the mental health or co-morbid group and most likely to be in the physical group. Those not seeing a psychiatrist or psychologist were more likely to be in the low stress category and tended not to be in the high stress category. The converse is true in that people who did see a psychiatrist or psychologist were likely to have a mental illness or an illness of both a physical and mental nature. They also were more likely to suffer from high levels of stress than lower levels.

Contacts with physiotherapist

Those who saw a physiotherapist were most likely to have a physical condition and least likely to have a mental condition.

Contacts with alternative health practitioner or other professional

Those who had not seen an alternative health practitioner were more likely to fall into the low stress category than they were to fall into either the medium or high categories. Conversely those had seen an alternative health practitioner were less likely to fall into the low stress category than they were to be either suffering from medium or high levels of stress. This may be because people who are less stressed to begin with are less likely to seek out an alternative practitioner rather than the other way around.

3.1.7 Contacts with workplace and between professionals

Contact between manager and professionals

Those who said there had been contact were less likely to be absent for physical reasons than mental or both physical and mental reasons. They were also less likely to be in the low stress category than the medium or high stress category. This again could be due to the fact that people who reported contact or no contact differed in terms of the reason for their absence so this might also explain why they seem to be less likely to have low levels of stress as opposed to high levels.

Contact with colleagues

Those who had no contact with colleagues were most likely to be absent due to mental illness and least likely to be out due to a physical illness. Those who did have contact with colleagues were most likely to be absent for physical reasons and least likely to be out due to mental difficulties.

Attachment to work:

This was measured on a 3-point scale of low, medium or high attachment from work. Those who felt they had a low attachment to work were more likely to fit into the low stress category than the medium or high stress categories. Those with a high level of attachment to their job were most likely to be absent for mental health reasons and least likely to be out for physical reasons. They were less likely to show lower levels of stress than medium or high levels.

3.1.8 Expectations on return to work

Expect to return to work in the future

Those who said that they expected to return to work within 6 months were more likely to be absent for physical reasons than mental or physical and mental together. The co-morbid group fared worst here and there were significantly less people from the co-morbid group reporting that they expected to return to work within 6 months than the other groups. The group who expected to return to work were more likely to suffer from low levels of stress than high levels of stress.

People who said they hoped to return to the same job and same employer were statistically more likely to be in the physical category than the other categories. They were also less likely to suffer high levels of stress and most likely to fall into the low stress category. Those who saw themselves as having a different job and a different employer were more likely to have a mental health issue than a physical or co-morbid condition. They were also more likely to fall into the high stress category than the medium or low stress categories.

3.2 Factors influencing return to work

Table 5 presents the outcomes 26 weeks later. Some 34% of respondents had fully returned to work and 8% had returned partially. Thus, 58% of disability benefit claimants reported still being on sick pay after almost nine months of absence. Of those who had returned to work, 74% had returned to the same job that they were doing prior to the absence, but 26% had moved to a different job.

Table 5 Outcomes 26 weeks later

Returned to work	Fully	34%
	Partially	8%
	No	58%
Where	Same job	74%
	Different job	26%

3.2.1   Personal factors

There were no differences found in people who had completely returned to work and their main reason for absence or their stress levels. This was also true for the group who had returned to work partially. However of the people who had not returned to work because they were still ill the majority of them fell into the co morbid category. In fact of all the co morbid participants 77% of them were still out of work at Time 2. The co morbid group were also to be found in the high stress category more often than any other stress category and they were least likely to be in the low stress category.

3.2.2   Work-related factors

Those who had the same job as before their absence were most likely to have been absent for a physical reason. They were also to be found in the high stress group less often than any other stress level. For those who now have another kind of job they were most likely to have a mental health problem and least likely to have a physical problem. In addition they show high stress levels, showing up in the high stress category more than one would expect from chance alone.

3.2.3   Non-work factors

Participants were asked about a number of factors that may have influenced their decision to return to work. These were total recovery, partial recovery, financial situation; sick leave benefit ran out, the need to work or something else.

Those who cited their financial situation as being an important factor in their decision to return to work showed medium levels of stress more often than high or low levels and were least likely to show low levels. This suggests that overall they have moderate levels of stress.

Those participants who said the need to work for personal rather than financial reasons was an important influence were more likely to be in the mental health group than the physical or co morbid. They were least likely to be in the physical group. They were also found in the low stress category less often than would be expected by chance suggesting that they experience moderate to high levels of stress overall.

Those people who said that it was something else other than the reasons we mentioned were more likely to be in the co morbid than the physical or mental group.

Partial recovery and sickness benefit running out did not seem to be related in any way to reason for absence or stress levels.

Self-efficacy and return to work

As with Time 1 those with low self-efficacy at Time 2 were most likely to have a mental illness and least likely to have a physical illness. They were most likely to be highly stressed and least likely to show low stress levels.

Those with medium levels of self-efficacy showed high levels of stress least often but they fell into the medium stress category more often than would be expected by chance suggesting that they generally experience moderate levels of stress.

Those with high self-efficacy were least likely to have a mental illness; the reason for their absence was most likely to a physical illness. They also tended to show low levels of stress as opposed to medium or high levels.

Depression and return to work

The depression scale was calculated again at time 2. Those who showed a low score were least likely to have a mental illness and most likely to have been absent for a physical reason alone. They also showed relatively low levels of stress. That is they were most likely to be in the low stress category and least likely to be in the high stress category.

Those who scored a medium level on this scale did not seem to differ in term of their reason for absence. However they tended to score highest in the medium stress category and lowest in the low stress category suggesting that they have a tendency to experience moderate and sometimes high levels of stress.

Those scoring high on the CES-D scale were most likely to be found in the mental and co morbid categories, with mental health category being the most common. They also showed very high levels of stress tending to show in the high stress category significantly more often than the other stress categories.

Work ability and return to work

Work ability did not seem to be related to reason for absence but those who felt incapable of work were found in the high stress category more often than any other category and they were least likely

to be found in the low stress category. Those who felt their work ability was optimal showed low levels of stress.

Physical work ability did not seem to be related to reason for absence. However those with low work ability showed high levels of stress. The exact opposite is true for those who reported high physical work ability. They showed low levels of stress.

The situation for mental work ability is different, as it does seem to be related to main reason for absence. Those with low mental work ability were most likely to have a mental illness and least likely to have a physical illness. They were also found in the high stress category significantly more often than would be expected by chance alone and they were least likely to show in the low stress category. Those who reported high mental work ability were least likely to have a mental illness and most likely to have a physical illness. They also tended to show low levels of stress and were found in the low stress category significantly more than would be expected by chance. They were least likely to be found in the high stress category.

Attachment to work and return to work

Those who felt a low level of attachment to work during their absence were least likely to have a mental illness and most likely to have a physical illness. They were most likely to show low levels of stress and least likely to show high levels of stress. Those who felt a medium level of attachment to work did not differ in terms of their reason for absence but they did tend to show medium levels of stress more often than would be expected by chance. Those with a high attachment to work were most likely to fall into the mental health and co morbid categories and least likely to be absent for a physical reason alone. This group also showed high levels of stress.

3.2.2 Towards a return to work model

Logistic regression was used in order to examine to what extent variables measured in the first questionnaire could predict whether the person would have returned to work six months later. The outcome variable predicted was if the person had returned to work either fully or partially versus those who had not returned to work at all. To evaluate the different perspectives related to absence and work resumption the variables were examined in four separate models based on different domains which have an influence on the situation: personal factors, work-related factors, non-work related factors and contextual factors. After examining the relevant variables in these models a comprehensive model was constructed to incorporate the most important variables in the same model.

Personal factors and return to work

The significance of personal factors in predicting return to work is presented in Table 6. Fourteen variables were entered in the model, of which only two had a significant effect in predicting return to work..All in all these personal factors accounted for about 32 % of the variance in return to work.

Table 6 Personal factors predicting return to work

	Cox & Snell R^2=.323		
	N=116	Odds ratio	95,0% C.I.
Gender	Male	1	
	Female	1.07	.313	3.63
Age	<=35	1	
	36-45	0.73	0.17	3.19
	46-55	0.79	0.15	4.32
	>55	0.55	0.69	4.36
Education	Basic	1	
	Intermediate	**1.15**	0.02	1.79
	High school	**1.35**	0.79	1.58
	Professional	**1.48**	0.29	7.41
	Academic	**6.07**	0.88	41.94
Marital status	Married	1	
	Co-habiting	0.69	0.11	4.34
	Single	0.56	0.11	2.8
	Divorced	0.37	0.53	2.54
	Widowed	0	0	0
Personal monthly income	Less than 899 €	1	
	900 - 1799 €	1.75	0.21	2.20
	1800 € or more	1.53	0.92	2.65
Multiple household income	No	1.00	
	Yes	0.92	0.15	5.58
Exercise	Low	1	
	Medium	3.78	0.74	19.37
	High	0.94	0.27	3.2
Sleeping problems	Low	1	
	Medium	0.89	0.17	4.73
	High	0.37	0.07	2.06
General health	Poor	1	
	Good	**1.45**	0.48	4.44
General self-efficacy	Low	1	
	Medium	1.82	0.41	8.03
	High	1.88	0.49	7.20
Depression	Low	1	
	Medium	1.41	0.33	5.96
	High	0.62	0.11	3.47
Emotional exhaustion	Low	1	
	Medium	0.88	0.25	3.13
	High	0.45	0.10	1.98
Absences in the preceding year	Less than 3 periods	1	
	3 periods or more	2.45	0.77	7.78
Time in absence in the preceding year	< 1 week	1	
	2-3 weeks	1.60	0.33	7.79
	>3 weeks	0.57	0.17	1.86

Note. The statistically significant odd ratios are bolded

Work-related factors in return to work

The significance of work-related factors in predicting return to work is presented in Table 7. Eight variables were entered in this model, of which three had a significant effect in predicting return to work.. Together these work-related factors accounted for 15 % of the variance in return to work.

Table 7. Work-related factors predicting return to work

	Cox & Snell R^2=.145		
	N=209	Odds ratio	95,0% C.I.
Sector of employment	Public	1	
	Private	0.93	0.44	1.98
	Non-profit	4.1	0.72	23.47
Size of workplace	<10 employees	1	
	11-50 employees	1.08	0.46	2.56
	>50 employees	1.770	0.83	3.78
Emotional demands	Low	1	
	Medium	1.85	0.89	3.88
	High	1.07	0.37	3.08
Cognitive demands	Low	1	
	Medium	1.02	0.48	2.14
	High	1.23	0.56	2.70
Job control	Low	1	
	Medium	1.57	0.72	3.43
	High	2.09	0.87	4.99
Job satisfaction	Low	1	
	Medium	**0.38**	0.15	0.94
	High	**1.84**	0.85	3.98
Job insecurity	Low	1	
	High	**0.77**	0.41	1.47
Over-commitment	Low	1	
	Medium	**0.36**	0.16	0.82
	High	**0.36**	0.15	0.88

Note. The statistically significant odds ratios are bolded

Non-work factors and returning to work

In Table 8. three variables were entered in this model, of which none were found to have a significant effect. These three variables accounted for only 2% of the variance in return to work.

Table 8. Non-work factors predicting return to work

	Cox & Snell R^2=.022		
	N=226	Odds ratio	95,0% C.I.
Work-family balance	Low	1	
	Medium	1.14	0.65	2.02
	High	0	0	0
Number of adults in the household	One	1	
	2 or more	0.96	0.41	2.21
Children in the household	No	1	
	Yes	1.89	1.08	3.30

Contextual factors and return to work

The significance of contextual factors in predicting return to work is presented in Table 9. Ten variables were entered in this model, of which two had a significant effect in predicting return to work. One of these was contact with a case manager, although this may be a result of the very small sub-sample (4 cases) who had had such contact. Altogether these contextual variables accounted for 22% of the variance in returning to work.

Table 9. Contextual factors predicting return to work

	Cox & Snell R^2=.221		
	N=104	Odds ratio	95,0% C.I.
Return to work- policy	No	1	
	Yes	0.56	0.17 1.78
Sickness absence- policy	No	1	
	Yes	2.44	0.93 6.43
Work arrangements made in the workplace during absence	No	1	
	Yes	1.30	0.48 3.55
Vocational rehabilitation in the workplace during absence	No	1	
	Yes	3.49	0.74 16.4
Medical / psychological interventions provided during absence	No	1	
	Yes	0	0 0
Contact with supervisor during absence	No	1	
	Yes	0.84	0.31 2.29
Contact with colleagues during absence	No	1	
	Yes	1.44	0.49 4.27
Contact with return to work case manager	No	1	
	Yes	**21.32**	1.37 331.52
A person co-ordinating return to work	Yes	1	
	No	1.65	0.47 5.84
	Don't know	0.98	0.21 4.57
Job position kept open	No	1	
	< 6 months	**2.21**	0.33 43.49
	>6 months	**7.56**	1.32 74.01

Note. The statistically significant odd ratios are bolded

A comprehensive model of return to work

The variables included in the comprehensive model were selected on the basis of theoretical and practical significance based on the four situational models. The variables included were education, general health, job satisfaction, job insecurity, over-commitment, contact with a return to work case manager, and whether a job position was held open. In the comprehensive model (Table 10) five of these variables significantly predicted return to work. Having good general health was associated with a 3.4 times higher likelihood of returning to work than those with poor health. Those with high job insecurity and / or low job satisfaction were much less unlikely to return to work. Finally the highest odds or returning to work were among those who had their job position held open compared

to those absentees who did no have a job to return to. Although initially significant in the personal model, education did not prove to be significant in the comprehensive model. Altogether the comprehensive model accounted for 23% of the difference between those who returned and those who did not.

Table 10. A comprehensive model of predicting return to work

	Cox & Snell R²=.231			
	N=233	Odds ratio	95,0% C.I.	
Education	Basic	1		
	Intermediate	132	0.44	4.00
	High school	1.04	0.20	5.32
	Professional	1.58	0.49	5.07
	Academic	2.01	0.55	7.37
General health	Poor	1		
	Good	**3.44**	1.39	8.48
Job satisfaction	Low	1		
	Medium	1.21	1.07	1.68
	High	**1.55**	1.19	2.54
Job insecurity	Low	1		
	High	**0.33**	0.12	0.87
Over-commitment	Low	1		
	Medium	0.41	0.15	1.16
	High	**0.33**	0.12	0.93
Contact with return to work case manager	No	1		
	Yes	**6.63**	0.36	123.5
Job position kept open	No	1		
	< 6 months	2.15	0.74	6.19
	> 6 months	**13.23**	2.99	58.47

Note. The statistically significant odd ratios are bolded

3.3 Discussion

The return to work performance of long term absent workers in Ireland can be described as sub-optimal. Even though the Irish sample was younger, had spent less time out of work and were more likely to report being in good health, the return to work performance within the sample was average. Irish respondents were less likely to be in touch with occupational health services, rehabilitation services, return to work services and mental health services compared to the other Member States. The main contact for people in the Irish sample was the GP. In a parallel professional study carried out as part of the Stress Impact study GPs were most likely to indicate that they either had no time to get involved, or no role, in the return to work process. These results strongly support the view that the Department of Social and Family Affairs, as the 'gateway' to economic inactivity, disability and poverty, requires to seriously review its policy and strategy in relation to long term absent workers in partnership with the Department of Health and the Department of Enterprise, Trade and Employment.

However it is clear from the table below that Ireland's return to work performance for people on disability benefit is close to the European average. Nevertheless there is a significant discrepancy in performance in comparison to the best performer - the Netherlands at 70%. It is also interesting to note that Ireland had the greatest number of younger workers claiming disability benefit, 48% compared to a European average of 38% and a lowest rate of 18% in Finland. The sample in Ireland also contained the largest number of people who were out of work for less than 24 weeks, 88% compared to a 33% average for the other Member States. It is also important to note that 50% of the Irish sample considered themselves to be in good health compared to a European average of 32% and a range from 56% in the Netherlands to 17% in Finland. On the basis of these figures one can conclude that the sample in Ireland was younger, had been out of work for a shorter amount of time and were in relatively good health compared to the average for the other Member States. In addition, over 40% of the sample indicated that their jobs were being held open for more than six months. Finally, over 50% of the Irish sample indicated that they could see the long term absence coming before it actually happened. This is slightly greater than the average of the other Member States. The range was from 60% in Finland to 42% in Austria.

Table 11. Return to Work in Ireland compared to other participating countries

	Average	Highest	Lowest	Ireland
Return to Work Full	30%	**NL** 63%	**UK** 9%	34%
Return to Work Partial	10%	**NL** 16%	**Fin** 7%	8%
Same/Different Job	32%/68%	**UK** 73%/27%	**NL** 9%/91%	48%/52%
Age < 45 years/ 45 years or more	38%62%	**Irl** 48%/52%	**Fin** 18%/82%	48%/52%
Length of Absence < 24 weeks / 35 weeks or more	33%/31%	Irl 88%/10%	Fin 5%/44%	88%/10%
Currently in Good Health	32%	**NL** 56%	**Fin** 17%	50%
Job held open for more than 6 months	41%	**Fin** 61%	**UK** 16%	40%
Could see it coming	50%	**Fin** 60%	**Aus** 42%	53%
High Stress	32%	**UK** 46%	NL 15%	30%
Size of Company 1-50/50 plus	58%/42%	**Fin** 76%/24%	NL 31%/69%	55%/45%
Contacts: GP	87%	**IRL/UK** 96%	**Fin** 70%	96%

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