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Author

Dr LannesAssociate Medical Director
SCOR Global Life

Editor

Bérangère Mainguy Tél.: +33 (0)1 58 44 70 00 Fax: +33 (0)1 58 44 85 17

life@scor.com

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Mental health is a state of well-being in which a person is able to realise their full potential, cope with the normal difficulties of life, work successfully and productively and be able to make a contribution to the community.

By 2020, the incidence of mental disorders will equal and probably outstrip that of cardiovascular disease and cancer.

"...difficulties of life... work... productivity": This general definition by the World Health Organisation (WHO), suggests, on the one hand, that mental disorders already have a significant impact on risk in life and health insurance and, on the other hand, that the "global wave of psychiatric problems" is gathering momentum and will certainly have a growing repercussion on our business as insurers. Let's begin with one key piece of information in this area: mental disorders constitute the first cause of death by suicide and the third cause of temporary and permanent disability after fractures and dorsolumbar pain.

This article is an overview of the main disorders that impact risk in life and health insurance. We will consider anxiety, the different forms of depression, bipolar disorder and schizophrenia. Alcohol and drug abuse, as causes or consequences of mental disorders, will also be addressed in each of the chapters.

The principal diseases

Anxiety

We all know what is meant by anxiety and we have all experienced it in certain circumstances or even for no apparent reason. It is a state of "internal tension" marked by a negative amplification of environmental stimuli and a feeling of foreboding or imminent catastrophe. It is a common life experience and may even have a positive impact when it enables us to mobilise our intellectual and physical capacities when a "fight or flight" response is needed to cope with unusual or dangerous situations.

However, anxiety can be distressing and become a hindrance or burden, making it impossible to concentrate, flee or act. Instead of a positive, useful emotion, it is paralysing and disruptive: this is pathological anxiety.

Anxiety can become chronic and all-consuming and impair the capacity to adapt: the person is unable to face the situations of everyday life. This may occur when the subject is faced with a given situation but an anxiety disorder may also develop on its own without any specific trigger factor.

Anxiety, or more generally neurotic disorders, have other modes of expression, and can manifest for example as:

- phobic disorders, an intense and distressing fear when the person is placed in a very specific situation: the presence of dogs, snakes, being in a confined space such as a lift (claustrophobia), with unknown people (social phobia), etc...
- obsessive-compulsive disorders (OCD), anxiety disorders characterised by the recurrent appearance of obsessive thoughts which lead to a series of gestures recognised as irrational by the subject, but which are nevertheless repeated in a ritualised and pervasive way. The symptoms may be expressed in very varied ways. Many people are subject to this type of symptom from time to time, but we talk about OCDs when the disorders take up at least one hour a day and have a negative impact on their daily activities. Touching certain objects an odd or an even number of times, moving items and moving them again, avoiding walking on lines in the ground, counting anything and everything... the diversity in this field is endless!

• panic attacks, paroxysmal anxiety attacks lasting several minutes or hours usually several times a month. They may occur spontaneously or be triggered by an emotion or physical effort. This condition usually begins at about the age of thirty when the person suddenly experiences a feeling of tension with all the symptoms of anxiety: neuro-vegetative (perspiration, tachycardia), motor (agitation, paralysis or inhibition) and or intellectual symptoms (negative amplification of events).



 finally, post-traumatic stress syndrome is defined as an anxious state occurring after an exceptionally violent event, for example, having one's own life or that of one's family threatened, being physically attacked, being the victim of an accident or a catastrophe. The event is constantly relived. During the daytime, the person has flashbacks or is unable to talk about anything else. At night, the traumatic scenes are relived in nightmares. Those affected make considerable efforts to avoid all thoughts, conversation or situations connected to the trauma. At this stage, there will also be associated concentration and sleep disorders, fatigue and a clear loss of interest in their usual activities. This withdrawal, will eventually affect the person's socioprofessional and family relationships. It can be a real challenge to insurance companies when decisions on claims and reparation are required.

Many of those who have anxiety disorders try to escape from their condition by consuming numbing, disinhibiting, euphoria-inducing or intoxicating substances... in other words: tranquilisers, in the short term, and alcohol or drugs. Anxiety disorders are treated with tranquilisers, mainly of the benzodiazepine family, to which antidepressants are added in some cases. Psychotherapy, relaxation, learning self-control and alternative medicines are all techniques and treatments which can help patients reduce persistent anxiety and handle the situations they fear most with greater serenity.

To complicate things, anxiety disorders are generally accompanied by elements of depression, that is to say a dimension involving sadness, discouragement or fatigue. Conversely, most depressive disorders are accompanied by symptoms of anxiety.

Depression

Depression should not be confused with ordinary "moods" or the "blows" that life sometimes deals. By depression we mean disorders that result in a rupture of a person's normal life routine. There is a before and an after. People who suffer from depression are no longer the same.

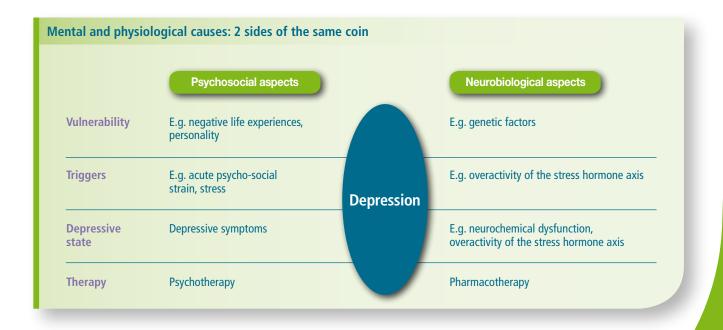
They are sad and may have negative and sometimes suicidal ideas, sleep disorders, mental and physical slowness and feelings of tiredness.

Women have twice the risk of suffering from depression compared to men. Depression can occur at any age: in childhood, in adolescence, in adulthood and in old age. However, the first episode usually occurs between the ages of 25 and 45, perhaps because this is the most difficult period in life. It is, above all, the period of all the major events in life, the responsibilities... The risk of recurrence is 50% after one depressive episode and 70 to 80% after two episodes.

Depression can occur spontaneously, without any clear trigger factor, in which case it is referred to as **"endogenous depression"**. It can also occur following a harrowing life event, such as a bereavement or divorce, and also after a serious illness (heart disease, cancer, etc...). This is known as **reactive depression**.

In Canada 30% to 50% of patients suffering from cardiac disorders and 25% of patients with cancer have suffered in the aftermath from serious depression. Moreover, it is estimated that over 10% of the population suffers from severe depression.

One point worthy of note for an insurer interested in long term care insurance and therefore necessarily in dementia: when a first episode of depression occurs after the age of 50, it is referred to as "late-onset depression" and is very often an early indicator of Alzheimer's disease... diagnosed a few years later

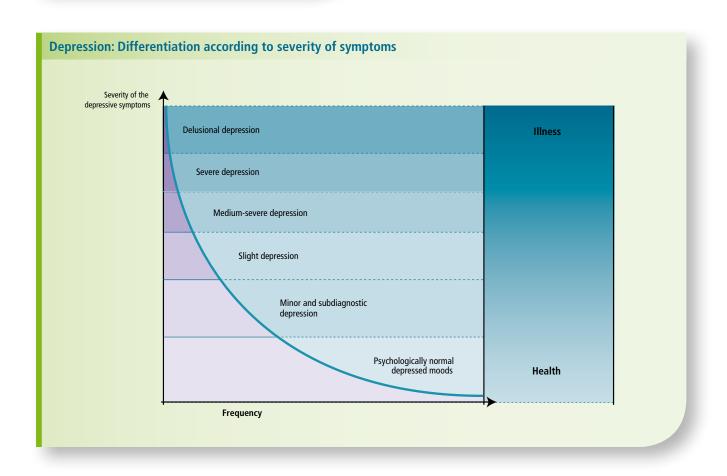


Today, the diagnosis of depression is made, above all, on clinical criteria. We do not have any paraclinical examinations (biological, imaging, etc.) available to help make a diagnosis or evaluate with any degree of accuracy the prognosis of depressive states. There is some evidence of progress in this field with the in-depth study of sleep and its disruption in subjects suffering from depression and also with the visualisation by MRI scanning of hypo or hyperactive regions in the brain of people with depression.

About 400 million people in the world suffer from mental or neurological disorders or psycho-social problems, associated in many cases with alcoholism or drug abuse. Depression is currently the fifth cause of mortality and disability in the world. (WHO)

The mechanism of depression is not precisely known and very probably consists of a chemical imbalance in the brain which leads to a biological disruption of mood, intellectual and physical functions. Reduced intracerebral concentrations of certain chemical neuromediators, serotonin for example, could play an important role. A family history of psychiatric disease, and in particular of depressive disorders, is observed in more than 50% of cases. Genetic predisposition of course plays a role... in an environment made up of negative life events which trigger or sustain depressive episodes.

Antidepressant medications are generally indicated for the treatment of depressive disorders. When this is the case, the rule is to judge the effectiveness of the treatment after six to eight weeks, the objectives being to improve and even cure the symptoms and to prevent the risk of suicide. Psychotherapy has also shown itself to be effective in his field. It has even been demonstrated that the best solution consists of combining these two treatments, which are perfectly complementary.



Hospital admission to a psychiatric ward is recommended when there is a high risk of suicide, in cases of severe somatic symptoms (anorexia in particular), and when the patient's family or social network is insufficiently supportive.

When depression is severe and resistant to different treatments, electroconvulsive therapy, more commonly known as electroshock treatment, may be given. This is an electrical stimulation technique in which a direct electric current is administered trans-cranially for a fraction of a second. It can have spectacular results on severely depressive subjects and is finding favour once more in some psychiatric departments.

Bipolar disorder

Formerly known as manic-depressive disease or psychosis, this disorder is characterised by alternating phases of depression, often very intense, intervals of normal life and phases with abnormally elevated levels of energy and mood, known as mania. It affects men and women in equal proportions and no socio-professional or ethnic groups are spared. The onset is usually between the ages of 20 and 30 and those affected will experience an episode of heightened euphoria when they are indefatigable, no longer sleep, spend money recklessly, have an unusually heightened sexual appetite, talk a lot, etc.

In the United States, bipolar disorder affects more than two million American adults.

This may last four to six months. The depression is the "negative" pole of the manic episode and is non-specific comprising of feelings of sadness, fatigue, sluggishness, suicidal ideation, etc. The rhythm of the bipolar disorders usually ranges from 1 to 2 a year but sometimes they are more frequent, for example 4 or more episodes per year when the disease is "rapid cycling". Left untreated, the disease carries a high risk of suicide and has major adverse effects on affective relationships with the family and professional environment. Once treated and stabilised, many patients manage to lead a normal life with occasional manic episodes. There is a very marked familial and therefore probably genetic predisposition: in two thirds of cases there is an identified family history of bipolar disorder, suicide or treatment by mood stabilisers.

Treatment is usually mood stabilising drugs which are capable of preventing the recurrence of depressive and/or manic episodes. These drugs do not treat the depression or the manic attacks directly but constitute a long-term treatment which results in the episodes becoming less frequent or shorter or less severe. They considerably improve the patient's condition.

Without treatment, the episodes of bipolar disease become longer, more frequent and increasingly severe. Mood stabilising drugs are essentially lithium salts but some anti-epileptic treatments and certain tranquilisers have recently come on the market which have also been found to be effective in treating bipolar disorder. A healthy lifestyle is at least as important as medication. For example, patients must be careful to ensure they have good sleep patterns, take precautions against jet lag and avoid excessive consumption of alcohol. They should also avoid night shift work.



Schizophrenia

Schizophrenia is a form of psychosis that affects 1% of the population. It generally begins between 15 and 35 years of age and affects men and women equally. It is a devastating disease to both the families of and the patients to themselves.

Different people become schizophrenic in different ways. Often, the onset is progressive and the subject leads a more or less normal life until a sudden attack of delusion, hallucinations or agitation occurs. Other possible presentations are events such as dropping out of school, a suicide attempt or any other symptom in the psychotic range. The use of cannabis is a trigger factor. It can induce or reveal schizophrenic vulnerabilities.



Once the disease has begun, it cannot be stopped and then progresses in a chronic mode, with acute phases and periods of relative calmness. The main feature of schizophrenia is the strangeness of the patient's behaviour. The person cannot adapt to reality, not only because of delusions but also because of a more global disorder involving disrupted and disorganised thinking, emotions and behaviour. This culminates in mental dissociation (incoherent and absurd attitudes and speech), radical personality change, a loss of interest in the surrounding world, reactions that are totally inappropriate in everyday life and withdrawal.

The evolution of the disease after five years is highly predictive of the outcome after twenty years. If the person continues to have hallucinations or to be delusional and has lost autonomy, this will also be the case after twenty years. If the person is stabilised and has regained a certain level of autonomy, once again this will be the case twenty years later. The prognosis is decided in the first five years of the illness. Less than a third of subjects suffering from schizophrenia acquire enough autonomy to be able to work in a protected environment or to live independently, alone or with a partner. The prognosis

is therefore far from optimistic. Moreover, in a third of patients, the progression is so severe that the reason why this disease used to be called "early dementia" can easily be understood. Subjects lose their emotional, intellectual and social capacities very early. Suicide is the leading cause of mortality in schizophrenia. Mortality is also impacted by the unhealthy lifestyle often associated with the illness (tobacco dependence, excessive alcohol consumption, sedentary lifestyle, obesity, etc.). Psychiatric hospital admission is often necessary, sometimes in emergency situations, especially at the beginning of the illness.

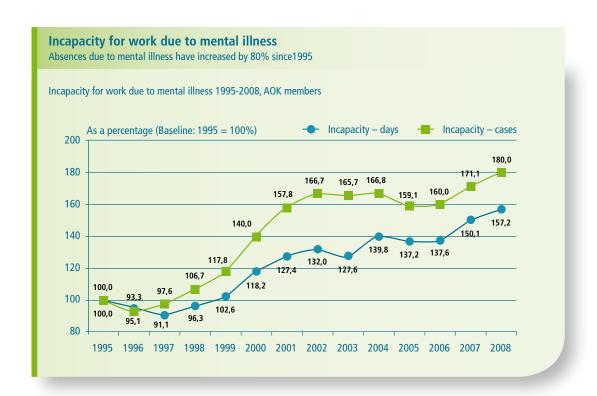
Antipsychotic drugs can improve the symptoms. In this field, significant progress has been made in the last 15 years with the arrival of so-called "atypical" antipsychotic drugs, the leaders being Olanzapine and Risperidone. Unfortunately, one of the ultimate symptoms in a number of patients with schizophrenia is an inability to take their medication.

Their impaired judgment does not allow them to draw the consequences of their situation: "when I stop my treatment, I find myself back in hospital again six weeks later". Psychiatrists now have at their disposal long-acting atypical antipsychotics: one or two injections a month give the same effect as taking one or two pills a day which is a remarkable advance for these patients who are often highly disorganised and liable to stop their treatment. Alongside the medications, psychotherapy combined with monitoring in an appropriate care structure is the best solution for the care of schizophrenic patients.

Mental disorders, economic crisis and working conditions

In France, a study carried out by the French Physicians Pension Fund (CARMF) showed that 40% of cases of permanent disability were due to psychiatric diseases compared with only 10% for cancer and cardiovascular diseases.

A recent report published by the Organisation for Economic Co-operation and Development (OECD) stated that increasing job insecurity and pressures at work could lead to an aggravation of mental health problems in coming years. There is expected to be an increase in depression, bipolar disorder and addiction (alcohol, drugs). Most of the people suffering from a mental disorder have a job, but they often have sick leave for long periods of time.



Applications for disability pensions, which used to be mainly the result of industrial accidents, are more and more often due to mental illnesses. The OECD estimates that one in three applications for disability pensions, and in some countries one in two, are made on the grounds of mental disorders, a problem which has been increasing since the middle of the 1990s.

Assessing the risk

In life insurance, the assessment of neuropsychiatric disorders is difficult both when the policy is taken out and when managing a claim. The main reason for this is that mental disorders belong to the family of "Subjective Illnesses" (SI's), that is to say that there are no clinical or para-clinical (biological, imaging) examinations available to establish a certain diagnosis or to appreciate the real severity of the mental disorder. Therefore, the prognosis is difficult to evaluate. When applying for insurance, some people minimise their impairments by, for example, using banal and rather reassuring terms such as fatigue, insomnia or stress instead of declaring their depression or even schizophrenia. It is also possible to exaggerate and amplify the symptoms when making a claim for depression, which is always severe, major, intense, invalidating, etc.

Furthermore, the progression of a mental disorder often depends in part on external life events, positive or negative, which will influence recovery or extend the duration of the applicant's depression or anxiety. All of this is difficult for the insurer to evaluate.

In this context, the Insurer must strive to collect as much objective information as possible on the history of the applicant's mental disorder. In addition to medical certificates, it is particularly useful to gather information concerning the prescribed psychotropic drug treatments (simple tranquilisers, antidepressants, treatment for bipolar disorder or antipsychotic drugs) or psychiatric hospital admissions, periods of sick leave and temporary disability for psychiatric disorders. For example, one or more hospital stays in a psychiatric department lasting more than 3 weeks, associated with treatment by antipsychotic drugs, will alert to the possibility of a psychotic disorder even if the medical questionnaire seems otherwise to be unexceptional.

With respect to suicide, the leading cause of death in claims for mental disorders, the insurer is faced with a shortage of statistical data. Many suicides are concealed by the family for different reasons, cultural, religious, etc. Many suicides are not identified as such and are attributed to accidents (car, drowning, falls, etc.). Medical confidentiality can also mean

that the real cause of a death goes unreported: how many suicides are masked by medical certificates for "death due to multiple injuries incurred in a fall"? In short, knowing precisely how many suicides an insurer has in a portfolio of death claims is a challenge and often what we have to analyse is an attempted suicide. A suicide attempt is an aggravating factor when there is a mental disorder, and it can be the starting point for major depression, bipolar disorder or schizophrenia.



However, it is necessary to keep things in perspective: in young people, in particular young women, many attempted suicides are in fact "cries for help" aimed at their family without there being any real underlying psychiatric illness. These suicide attempts often take the form of overdoses of medication and alcohol followed by a short hospital stay and in most cases lead to a reconciliation, some soul searching, etc. In these cases the insurer must be willing to wipe the slate clean after a few years of "normal" life.

In practice, when an application for insurance is assessed for mental disorders, the underwriter must endeavour to:

- Decline cases of serious psychosis, psychotic behaviour, non-stabilised schizophrenia.
- Take into account a family history of psychiatric illness, if it is declared.
- Take account of a personal history of mental disorder, bearing in mind that we are in the world of the "subjective illness". Indeed anything and everything can be written in a medical questionnaire on this subject.
- Rely on a maximum of objective information which the applicant cannot fail to know, in order to form one's opinion and judge the severity of the mental disorder: hospital stays of over 3 weeks, treatment with tranquilisers, antidepressants, antipsychotics, electroshocks, psychotherapy, sick leave and disability for psychiatric problems.
- Carefully analyse the applicant's personal history and lifestyle, in particular consumption of alcohol, tobacco or drugs.

Using this information it will usually be possible to make a decision and offer a rating that takes account essentially of the risk of suicide in death cover and the repercussions that the mental disorder may have on the professional activity by assessing as objectively as possible the risk of sick leave or disability.

For example:

- An applicant with an anxiety disorder treated by tranquilisers and/or psychotherapy but without any history of suicide attempts or hospitalisation in specialist departments or sick leave or disability would probably be a standard risk.
- A declared depressive episode may, after analysis of the application, be classified as minor, moderate or major depression. The rating will be adapted accordingly in each of these cases.
- An applicant with a psychotic-type disorder, for example schizophrenia, who has been hospitalised several times in a specialist department, treated with antipsychotics and has been granted a permanent disability pension would almost certainly be declined for life insurance.

These caricatured cases illustrate a range of rating decisions for life cover but prudence must remain the rule for disability riders. In this field, it is possible either to offer an adapted price, or offer a "neuro-psychiatric disorder" exclusion. It is often useful to opt for long waiting periods and provide for limited benefit payment periods or ceilings. A large number of cases of psychiatric disability start before the age of 40...

Excessive alcohol consumption and/or drug abuse which may be combined with an applicant's mental disorder should always be considered as serious aggravating factors which very often lead to a declinature of the application.

For applicants who have attempted to commit suicide, the underwriter has two options:

- To integrate the event in the underlying mental disorder and make it an aggravating factor. This is the recommended option in the North American market.
- Elsewhere, the suicide attempt and the underlying mental disorder are usually assessed separately. In this approach, account is taken of the time interval since the suicide attempt and the application for insurance as well as of the number of suicide attempts that have been made. We would recommend a postponement for any attempted suicide less than one year before seeking insurance and to decline the application if there have been more than three attempts.

Major depression, psychosis, and in particular schizophrenia, require a careful analysis of the application and a great deal of prudence on the part of the underwriter.

We must not forget that these are severe conditions that are part of the sometimes "subjective" world of psychiatry.

An applicant stabilised by treatment for several years, who is successfully integrated from the social and occupational point of view, with no suicide attempts or recent hospitalisation or excessive consumption of alcohol or drugs could be rated for life cover alone.

Conclusion

Mental disorders will come to weigh heavier and heavier in the balance for insurers, the issue is wide-ranging and difficult to standardise and what is offered in this publication is only an overview. But although underwriting guidelines are difficult to adapt to psychiatric disease, SCOR Global Life considers that it is important to examine this subject in depth, in order to assess the risk as objectively as possible, as we do for physical illnesses. We hope that this overview has aroused your curiosity, on a personal and professional level, and encouraged you to continue exploring... Let's keep in mind that this is a risk that is often subjective, but one which is growing rapidly all over the world.





SCOR Global Life 5 avenue Kléber 75795 Paris Cedex 16 France

