

## Psychological Pain

### *Psikolojik Acı*

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#### Abstract

Psychological pain is a mental suffering process that can be caused by losses, traumas, unexpected negative situations, and unmet basic needs. Although it can accompany physical pain, psychological pain is independent of physical pain. Psychological pain is generally related to depressive disorder but it can be present in other psychiatric disorders and even in situations not identified as a disorder. It is considered as an important predictor of suicide. There is a correlated relationship between psychological pain and suicide. Activated pain pathways in the brain are similar in psychological and physical pain. There are some scales to assess psychological pain but studies are insufficient about this issue. By taking into consideration its relationship with suicide, psychological pain needs to be assessed in new studies in the future.

**Keywords:** Depression, mental pain, psychache, psychological pain, suicide

#### Öz

Psikolojik acı; kayıp yaşama, travmatik olaylara maruz kalma, hayal kırıklığı, kişinin beklenmedik olumsuz durumlarla karşılaşması, temel ihtiyaçların karşılanmaması gibi durumlardan kaynaklanabilen zihinsel acı çekme sürecidir. Fiziksel ağrıyla birlikte bulunabilir ancak fiziksel ağrıdan bağımsız bir kavramdır. Sıklıkla depresif bozuklukla ilişkilendirilmiş olmasına rağmen diğer psikiyatrik durumlarda ayrıca klinik olarak hastalık olmamasına rağmen de görülebilmektedir. İntihar davranışının önemli bir öngörücüsü olduğu düşünülmektedir. Psikolojik acı şiddeti ve intihar riski arasında doğru orantılı bir ilişki bulunmaktadır. Psikolojik acıya maruz kalan kişilerde beynin aktive olan bölgelerinin fiziksel ağrı yollarıyla örtüştüğü belirtilmektedir. Psikolojik acıyı değerlendirmek için çeşitli ölçekler bulunmaktadır. Ancak bu kavramla ilgili çalışmalar yeterli düzeyde değildir. İntihar davranışı ile ilişkisi göz önünde bulundurulursa ileride yeni çalışmalara konu olabilecek gibi görünmektedir.

**Anahtar sözcükler:** Depresyon, intihar, mental ağrı, psikolojik acı, psikolojik ağrı.

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**THE PAIN** in the expression 'I can not endure this pain anymore' which is frequently seen in suicide notes is not physical pain but psychological pain (Goldsmith et al. 2002, Mee et al. 2006). Psychological pain is a mental suffering process which may be felt as pain, shame, grief, sadness, and similar negative feelings. It is a difficult emotional disturbance to endure, when the psychological pain is so intense, suicide can be the only escape route (Kovacs et al. 1975, Shneidman 1979, Osmond et al. 1984, Mee et al. 2006). The intensity of mental pain is increasing in people with major depressive disorder, physical illness and serious social stress (eg, child loss) and this increase the risk of suicide (Mee et al. 2006).

Despite the fact that there is a thought to be related to suicide and philosophers, theorists, authors are interested in the concept of psychological pain, the data about this phenomenon is insufficient (Orbach et al. 2003). The aim of this review was to define the concept of psychological pain which is a subject which is not sufficiently focused on, to examine the studies done on this subject in the past, to determine the psychiatric and non-psychiatric situations that psychological pain can be accompanied and to review the psychological pain assessment scales.

## Definition and History

Psychological pain was first defined by Shneidman (1996) as 'psychache' in 1990's and then by Orbach (2003) as 'mental pain' and by Mee (2006) as 'psychological pain' and some other authors defined this phenomenon as 'emotional pain' or 'psychic pain' (Heeringen et al. 2010, Mee et al. 2011).

Freud (1955, 1959) attributed this subject to the mourning and longing after the traumatic loss of the loved one (Orbach et al. 2003). Bakan (1968) stated that having a loss is the main influential factor in psychological pain (Orbach et al. 2003). Frankl (1963) pointed out that psychological pain is a gap created by the loss of meaning in life and psychological pain is caused by problems arising from existential barriers (Orbach et al. 2003). Anxiety, even despair, about an individual's core values is an existential problem, but not a mental illness. Individual basic concerns should be for seeing the meaning of life, not for getting rid of pain or enjoying it. When it comes to meaning, suffering ends (Tossani 2013). Baumeister (1990) has mentioned about psychological pain in his theory of suicide. He thought that suicide is escape from the self. 'When the negative consequences lower the person's standards and the outcomes are related to the self, the person experiences psychological pain'. He also pointed out that the basic sensation of psychological pain is one's own disillusionment (Orbach et al. 2003). Herman (1992) and Janoff-Bulman (1992) have reported that psychological pain is triggered by trauma and loss, and in essence, is a negative perception of change in self (Orbach et al. 2003). Bolger (1999) investigated psychological pain by analyzing emotional pain in people who experienced traumatic experiences. In Bolger's analysis (1999), the psychological pain was described as 'the break of the self'. This feeling of break consists of various determinants such as sense of injury, leaving the loved one, loss of self, loss of control, and threat perception (Orbach et al. 2003). Sandler also described psychological pain as a contradictory emotional state between ideal and true self-perception (Tossani 2013).

Loeser (2000) has assessed the processes of suffering and stated that pain may occur as a result of physical pain as well as fear, anxiety, depression, hunger, fatigue, or loss of

loved objects. Loeser stated that 'Suffering is a mental process, and the reasons for it vary from person to person. There are no physical examination findings, laboratory tests, imaging studies to determine its presence. This phenomenon can only be determined by asking the patient and listening to the story (Tossani 2013).

Two hypotheses have been proposed by Mee et al. (2006). First, psychological pain is an important symptom of depression and can be an important predictor of suicidal behavior. Second, if physical and psychological pain shows similar subjective symptoms, it is emphasized that brain imaging studies have common brain pathophysiology but if there are different subjective symptoms, different brain structures are active.

In the study done by Osmond et al. (1984) thirty patients with depressive symptoms who were life-threatening physical illnesses such as heart attack, cancer, multiple surgical intervention or serious injury were questioned for physical pain and psychological pain. Twenty-eight of the patients stated that psychological pain was worse than any physical pain they experienced (Mee et al. 2006).

Although many researchers have interpreted this phenomenon from many perspectives, the greatest contribution to the clarification of the concept of psychological pain has been provided by Shneidman (1985) as part of the theory of suicide (Orbach et al. 2003). Shneidman (1993,1996) who defined psychological pain as 'psychache' has stated that psychological pain arises when the individual needs to be loved, to control, to preserve his self-image, not to feel embarrassed, to feel safe, to understand and to be understood are prevented. These prevented needs cause negative feelings such as frustration, guilt, shame, defeat, humiliation, grief, hopelessness and anger, and so unbearable psychological pain occurs. If the psychological pain reaches a high level and the person does not anticipate any change in the future, he/she tries to get rid of the psychological pain by suicide (Orbach et al. 2003).

The introduction of Psychological Pain Assessment Scale (PPAS) developed by Shneidman (1999) includes the definition of psychological pain. The scale defines the psychological pain as 'Psychache is not the same as somatic or physical pain. It is how you feel like a human being, how you feel in your mind or in your heart. It is mental suffering and mental torture. It can be felt as shame, guilt, grief, humiliation, despair, loneliness, sadness or sorrow'.

## Relationship with Suicide

Psychological pain is often found in suicide notes (Shneidman 1993, Valente 1994, Leenaars 1995, Orbach et al. 2003). The important point that Shneidman has pointed out as a result of the compilation of numerous suicide notes is that there is no suicide without psychological pain. The social stress factors, especially the recent personal, occupational, financial losses trigger the psychological pain which increases the risk of suicide (Mee et al. 2006).

In a study of suicide, it was reported that depression and hopelessness were insufficient to predict suicidal behavior. However, when the psychological and emotional pain reached an intolerable intensity, it was stated that suicide risk was much higher especially in mood disorders (Berlim et al. 2003, Joiner et al. 2005, Mee et al. 2006). Suicide is a result of interaction between psychological factors such as personality traits, emotional instability and biological factors such as genetic predisposition, drugs used, accompanying diseases and environmental factors such as social support, sociodemo-

graphic characteristics. Although there are various risk factors in predicting suicide, the relationship between psychological pain and suicidal behavior is highlighted (Verrocchio et al. 2016).

It is stated that depression is influential on suicidal behavior when it is related to psychological pain, that psychological pain has a catalytic effect on other suicide risk factors. This situation overlaps with Shneidman's comment that 'there is no suicide without psychological pain'. Buchwald; interpreted suicidal behavior as a 'permanent solution to a problem caused by irresistible pain' (Verrocchio et al. 2016). Many authors suggested that psychological pain is a core risk factor for suicide after considering non-suicidal depressive patients and suicide attempters who are not depressed (Verrocchio et al. 2016). According to research conducted by Soumani and his colleagues (2011) on this issue; psychological pain is an important risk factor for suicide independently of depression. There are supporting data about the relationship between suicidal thoughts, motivation, preparation, suicide attempts, and psychological pain but there are no systematic studies about this issue (Verrocchio et al. 2016).

When the relevant data in the literature are examined, it is concluded that psychological pain is highly related to suicide and it occurs after the basic psychological needs of the individual (love, closeness, appreciation, independence) are not sufficiently satisfied. The relationship between psychological pain and suicide has not only been shown in mood disorders but also in other samples (homeless, prisoners). Research has shown that psychological pain is much heavier than other negative emotions, and this is why it has become unbearable (Verrocchio et al. 2016). Recent researches has shown that psychological pain alone did not lead to suicidal behavior but if stress cannot be coped with, if no help is available, if there are interpersonal problems, communication difficulties, alexithymia or schizoid personality traits, suicide risk is increasing (Verrocchio et al. 2016).

## Psychiatric Comorbidity

Psychological pain was mostly associated with depression among psychiatric disorders. In the presence of severe stressors, especially after the loss of a child, spouse or a significant person, psychological pain becomes a risk factor for suicide and/or depression (Mee et al. 2006). Psychological pain is a subjective condition and is related to emotional situations such as depression and anxiety and has commonalities. Situations such as loss of love object and trauma are common risk factors for anxiety, depression and psychological pain (Herman 1992, Bolger 1999, Orbach et al. 2003). In a study conducted by Orbach et al. (2003), in which psychological pain, anxiety and depression were assessed, it was found that although these concepts are related to each other at a significant level, they are not completely overlapped and are thought to have different aspects.

Physical pain, psychological pain and major depression can also affect each other. Chronic physical pain and psychological pain can lead to depression as well as depression can intensify chronic physical pain (Bair et al. 2003, Mee et al. 2006). Physical pain can be accompanied by psychological pain, but it is important that it can be psychological pain without any physical pain and it is very difficult to detect this condition (Shneidman 1999).

People with borderline personality disorder often have dysphoric feelings, tension,

anger, grief, shame, panic, chronic emptiness, and loneliness. These individuals can be distinguished from others by the multidimensional psychological stress they experience. This psychological pain is interpreted as a response to adaptation to childhood repetitive traumatic experiences such as parental loss, parental mental illness, witnessing of violence, emotional, physical and sexual abuse. Psychological pain is intensely described in women with borderline personality disorder and is associated with childhood abuse (Tossani 2013). Leibenluft and his colleagues (1987) interpreted self-injurious behaviors as 'the need to feel real physical pain instead of psychological pain'. Thus, the attention of the patient is directed to physical pain from psychological pain (Tossani 2013).

Psychological pain was also assessed in posttraumatic stress disorder. Avoidance behavior was described as 'emotional analgesia' (Tossani 2013). Engel (1961) states that mourning is a characteristic response to the loss of a valuable object or a loved one, property, work, status, home, country or part of the body. Engel (1961) also draws attention to the fact that mourning causes psychological pain, causes many physical and psychological symptoms, and affects functioning. In fact, the most obvious feature of mourning is being painful. The pain felt in depression is similar to mourning but low self esteem and pessimism is less common in mourning (Tossani 2013).

## Brain Imaging Studies

In studies of positron emission tomography (PET) and functional magnetic resonance imaging (fMRI), it has been found that psychological pain affects many nociceptive structures in the brain, such as physical pain. As a result of the studies, it was stated that the subjects who are exposed to psychological pain overlap the active areas of the brain with the physical pain pathways. In fact, there is no published study that examines the pathways associated with psychological pain. However, the results obtained from situations such as sadness, social exclusion, grief that may be related to psychological pain have been interpreted. Functional brain imaging studies have shown that brain structures associated with physical pain and psychological pain are the anterior cingulate, insula, and prefrontal cortex. The somatosensory cortex only has activity in physical pain (Mee et al. 2006).

In neuroimaging studies performed in depressive patients, it has been shown that dorsolateral prefrontal and anterior cingulate cortex activity diminishes, these brain regions play a key role in emotion regulation. In the study about neuroanatomy of psychological pain by Heeringen et al. (2010), psychological pain in people with depressive disorder was assessed by the Orbach-Mikulincer Mental Pain Scale (OMMP), the Hamilton Depression Scale for suicidal ideation, the Beck Hopelessness Scale for hopelessness, and the single photon emission computerized tomography (SPECT) for regional cerebral blood flow. In this study, there was a direct and proportional relationship between psychological pain level and suicidal thoughts and hopelessness. There was no relationship between psychological pain level and depression severity. As a result of the comparison of the persons with low and high psychological pain level, there was an increase in blood flow in the right dorsolateral prefrontal cortex, occipital cortex, inferior frontal gyrus, and left inferior temporal gyrus and relatively decreased blood flow in left medullary in persons with high psychological pain level. High levels of psychological pain were found to be related to blood flow changes in brain areas related

to emotion regulation in depressed persons.

In another fMRI study designed to assess suicide and psychological pain association, a widespread lack of activity was determined in the corticofrontal areas of the subjects who attempted suicide (left dorsolateral prefrontal cortex, right anterior prefrontal cortex, and left medial prefrontal cortex) (Verrocchio et al. 2016).

## Neurobiology

While there are very few data on pathophysiological and metabolic substrates related to psychological stress, almost nothing is known about genes mediating psychological pain (Mee et al. 2006). It is unclear why some depressive patients experience psychological pain and why others do not. So when it comes to psychological pain, it is not clear how the neural circuits involved in the regulation of emotion function differently (Heeringen et al. 2010). In a study by Meerwijk and Weiss, reduced low-frequency heart rate variability and electroencephalogram (EEG) delta wave were associated with inadequate mood control, increased rumination, and inability to assess the consequences of psychological pain (Verrocchio et al. 2016).

## Psychological Pain Scales

Clinicians have struggled to develop scales to identify factors that predispose psychological pain or suicidal tendencies in psychiatric disorders and have made various psychological pain definitions. Having a scale that can be used to assess psychological pain is thought to help identify individuals who are at risk of suicide (Mee et al. 2011).

Various scales related to psychological pain have been developed. First, Shneidman (1993) developed the Psychological Pain Assessment Scale (PPAS) on his own definition. PPAS is influenced by the Thematic Apperception Test (TAT) in content and structure and needs a practitioner to manage the test and interpret the results (Mee et al. 2011). PPAS contains the definition of psychological pain. By this way, current level of psychological pain is questioned. PPAS contains five pictures and the level of pain is questioned by the interpretation of the pictures. It is requested to tell the worst psychological pain and level of pain experienced so far. This allows the person to write freely, create stories, and make psychodynamic narratives (Shneidman 1999).

In the following years, Holden (2001) developed the Psychache Scale (PAS). PAS was also designed to investigate the relationship between psychological pain and suicidal tendency similar to PPAS and OMMP. PAS is a short, likert type self-report scale and consisting of 13 items. Although it is based on the definition of 'psychache' associated with Shneidman's suicidal tendency, it does not contain items related to the intensity of psychological pain. As a result, it has been observed that PAS successfully distinguishes suicide attempters and nonattempters, but focusses on the frequency of psychological pain than its intensity (Shneidman 1999). Turkish validity and reliability of PAS has been proved (Demirkol et al. 2018).

Orbach developed multidimensional Orbach Mikulincer Mental Pain Scale (OMMP) in 2003. OMMP is a likert type self-report scale consisting of 44 items and 9 factors. High scores on the scale reflect the severity of psychological pain. The 44 items of scale include phrases such as 'I will never find something again, I will lose something, this pain will never go away, this tough situation will never change, the world has

changed forever, my life has stopped, I can never be the same person'. Nine factors include expressions such as 'irreversibility, loss of control, narcissistic injury, emotional overcrowding, freezing, self-estrangement, confusion, social distance and emptiness'. With these factors OMMP offers a wide range of experiential characteristics that define psychological pain. Different features not included in the frequently used depression scales are evaluated in OMMP6. Internal consistency, test-retest reliability and relationship to suicide of this scale has proven (Tossani 2013).

Olie and colleagues developed the Visual Analogical Scales (VAS) in 2010. Three Visual Analogue Scales based on the evaluation of physical pain were used to measure current suicidal ideation, psychological pain and physical pain. Each of the scales assesses the present and past (during the last 15 days) in the range of 0-10 points (Mee et al. 2011).

The Mee-Bunney Psychological Pain Assessment Scale (MBPPAS) is a 10-item likert-type self-report questionnaire. In these 13 items, the severity and the frequency of psychological pain is assessed. Because it is a scale that can be completed in as little as five minutes, the clinician can quickly and reliably determine the psychological pain that can help in assessing the risk of suicide. PAS and MBPPAS are short and easy-to-use scales, but while PAS questions only current psychological pain, MBPPAS is questioning the current time and last 3 months. MBPPAS also assesses the intensity of psychological pain as well as the frequency (Mee et al. 2011). PPAS and OMMP are scales that take more time to fill than others.

In addition, Buchi and colleagues developed a scale called Pictorial Representation of Self-Measure (PRISM). This scale does not rely on language skills and was used to measure suffering in validation studies. It can quickly reveal the evaluation of patients' suffering (Tossani 2013).

Despite the scales developed for psychological pain, clinicians tend not to ask questions about their patients' mental pain and suffering, and even scales often used in clinics ignore this issue. Taking this into consideration, Tossani developed the Clinical Assessment Scale for Mental Pain in 2012 to obtain data and evaluate psychological pain during the interview. There are questions like 'mental pain is felt or not felt? how can it be defined? how can it be compared to physical pain? is it constant or is it effective at a certain time?' on this scale. The questions and the rating format are adapted from Paykel's Clinical Interview for Depression (Tossani 2013).

## Conclusion

Psychological pain is a condition unknown to most clinicians or escaping from the eye, but needs to be further investigated because it is an important risk factor for suicidal behavior. It is a subjective situation and may show changes between individuals. Although there have been various definitions so far, there seems to be a need for a common definition that includes diagnostic criteria that better draw boundaries.

Clinicians tend to take psychiatric history, review the past disease episode, and use only depressive scales to assess the risk of suicide but it seems useful to use psychological pain assessment scales as it is an important risk factor for suicide. Scales that can be applied in a short time also seem to provide convenience in the outpatient clinics or in the hospital admission before discharge. In addition, identifying and healing the causes that exacerbate the psychological pain will indirectly help reduce the risk of suicide.

Since psychological pain is mostly an unknown concept, it can be determined as a new research topic whether it benefits from the methods we use to treat psychiatric disorders, such as therapy methods or antidepressants. In the future, studies evaluating the relationship between psychological pain and suicidal behavior in psychiatric disorders such as schizophrenia, bipolar disorder and major depressive disorder can be planned. Furthermore, since there are no studies evaluating the frequency of psychological pain in these psychiatric disorders, it may be subject to further research. Another point that needs to be investigated is the neurobiology of psychological pain in which there is insufficient number of studies.

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