Review

J. J. van Egmond

Secondary gain and the need to be ill

[1] Hospital Psiquiátrico Brinkgreven
Deventer. Holland

Introduction. Freud introduced two concepts of illness gain-one was a more external conscious adaptive form of gain, called secondary gain, and the other was a more internal unconscious destructive form of gain, called the need to be ill. Both forms of illness gain are interdependent and secondary gain can generate a need to be ill.

Method. Empirical research was used to examine the question of how and why some disorders, such as post-traumatic stress disorder, repetitive strain injury, and whiplash injury, are liable to generate illness gain in affected individuals.

Results. This article describes how and why these disorders are becoming more common.

Conclusions. It is important for the therapist to know the background of these disorders in order to be able to combat the associated secondary gain.

Key words:
Illneess gain. Post-traumatic stress disorder. Repetitive strain injury. Whiplash injury.

Actas Esp Psiquiatr 2005;33(2):123-129

El beneficio secundario y la necesidad de estar enfermo

Introducción. Freud introdujo dos conceptos del beneficio de la enfermedad. Una forma de beneficio más externa, consciente y adaptable, llamada el beneficio secundario, y una forma más interna, inconsciente y destructiva, llamada la necesidad de estar enfermo. Ambas formas de beneficio de la enfermedad son independientes y el beneficio secundario puede intensificar la necesidad de estar enfermo.

Método. En base a una evaluación de investigaciones empíricas explorar cómo y por qué determinadas afecciones, concretamente el trastorno de estrés postraumático, la lesión por esfuerzo repetitivo y la lesión de latigazo cervical (whiplash), son muy propensas al beneficio de la enfermedad.

Resultados. En este artículo se describe cómo y por qué estas afecciones podrían tomar formas epidémicas.

Conclusiones. Para el terapeuta es importante conocer este trasfondo para poder combatir el beneficio de la enfermedad en estas afecciones.

Palabras clave:
Beneficio de la enfermedad. Trastorno de estrés postraumático. Lesión por esfuerzo repetitivo. Lesión de latigazo cervical (whiplash)

INTRODUCTION

The DSM-IV[1] defines secondary gain as: «external gains are obtained or harmful tasks or responsibilities are evaded» (page 453). However, the concept «secondary gain» has different meanings. For example, there have been many discussions on whether secondary gain is a conscious, preconscious or unconscious phenomenon[2], but this is a trivial point, since disease gain can also be partially conscious and partially unconscious. While the patients are often very aware of the external gains of suffering a disease, they do not necessarily realize that harboring expectations of gain may increase the symptoms and make them feel worse. Freud[3,4], who introduced the term secondary gain, began to understand the destructive aspects of instinctive life during his lifetime. He no longer used the term «secondary» gain, which is described as, above all, a constructive and adaptation capacity. In its place, he focused his attention on the unconscious need to be ill. He described both the conscious as well as unconscious aspects of disease gain. It is too easy to think that harboring expectations on the gain only leads to worsening of the symptoms or to believing one is ill[5]. The patient's lack of awareness of the disease may also lead to deterioration of the already present symptoms. The unfortunate patients may finally believe that they are as ill as they claim to be. For example, Cassidy et al.[6] found a relationship between the duration of a damage claim due to a whiplash injury and the seriousness of anonymously repor-

Correspondence:
J. J. van Egmond
Postbus 5003
7400 GC Deventer
Holland
E-mail: j.vanEgmond@adhesie.nl

ted depression symptoms. In the Canadian province of Saskatchewan, there were more anonymous reports of depressive symptoms when there was a local law that made it possible to make damage claims due to whiplash than when this law was not in force.

Another example of secondary gain leading to worsening of the pain is mentioned in the Emsley et al. study[7].

These authors observed that negative post-traumatic factors (including compensation) played an equally important role as the premorbid factors and the seriousness of the trauma in the development and seriousness of the post-traumatic syndrome in South African security agents. Egmond and Kummeling[8] agree with the investigation of Cassidy et al.[6] and Emsley et al.[7]. Egmond[8] observed that when anonymous surveys were made among patients, the frequency of secondary gain in out-patient psychiatric patients of a psychiatric hospital accounted for 42.2 % of all the recently admitted patients. More important was his discovery that the patients who harbored secondary gain expectations more often had considerably worse therapeutic results than patients without disease gain expectations.

Modern society has established support systems, measures and procedures that lead to the predisposition to be ill[9]. It can be added that some diseases are at least partially invented, self-produced, plotted, promoted and extended by the press, lawyers and patients as well as by professional organizations. Unfortunately, it seems that some diseases that make the patients especially prone to disease gain or to manifestations of the need to be ill are also the most sought by the press and lawyers. Among these disorders, post-traumatic stress disorder, whiplash, repetitive strain injury, chronic fatigue syndrome may be included, which have been given quasi-medical names such as myalgic encephalitis, fibromyalgia and spastic colon syndrome. As therapists, we should realize that the diagnostic labels given to the patients in these disorders promote disease instead of relieving it[10]. Thus, for some disorders, it is sensible to give more detailed consideration to the meaning of these labels.

POST-TRAUMATIC STRESS DISORDER

Post-traumatic stress disorder (PTSD) is a recognized psychiatric disorder. It was included for the first time in the Diagnostic and Statistical Manual of Mental Disorders (SDM-III) in 1980[11]. The diagnostic criteria for PTSD are a persistent flashback of an event or a traumatic situation, such as a nightmare or recurrences, avoiding trauma associated stimuli and increased irritability, which is manifested in insomnia and physical reactions such as palpitations, perspiration and the so-called startle response (DSM-IV, 1994). The PTSD diagnosis has clearly political meanings. In the 1970's, the medical specialists called in as experts in the courts spoke of post-Vietnam syndrome. At the end of this unpopular war, the Vietnam veterans were initially treated with hostility, especially by the anti-militaristic pressure group. However, the Veteran Movement changed things and during the 1970's, the medical world recognized that there was a relationship between combat experiences in Vietnam and alcoholism, violence and depressions of the veterans[12-15]. A public movement, formed by veterans, lawyers and psychiatrists, supported by publicity media, stressed the need for more understanding of the suffering of those involved in the war, which resulted in the inclusion of PTSD in the DSM III.

Due to the quite general expression of the criteria for the diagnosis of PTSD, many persons who had experienced a traumatic event were diagnosed with a medical disorder[16]. Hume and Summerfield[17] wrote in this context on «the industry of trauma». There was not only a large increase in the number of persons affected by the disorder but also in the number of lectures, publications, number of organizations and individuals, such as lawyers, newspapermen, psychopsychiatrists and physicians, involved in the problem. Withuis[18] called it «trauma culture».

The subsequent merging in regards to the diagnosis of PTSD both by the patients as well as the organizations and the criticism on it led to a change in the trauma definition[17]. Thus, as the trauma concept in the DSM-III is defined as an event outside of normal human experience, which would cause suffering in almost all persons, in the DSM-IV[1], trauma is defined as a physical factor that causes stress that threatens mental or physical integrity of the individual and causes feelings of helplessness andimpotence. In spite of the stricter definition, the stress disorder continues to have a very wide classification that gives rise to more than one interpretation.

The fact that there was an explosive increase in the number of persons who suffer PTSD does not mean that this PTSD did not exist before the 1970's. The term «solder's heart» was used in the 19th century to describe the inexact symptoms that the solders sometimes developed after fighting in a war. The term «shell shock» (shock due to bombings, war neurosis) has been linked forever to the First World War. in the beginning, it was thought that reactions to shock - incapacity to speak, rare motor movements and total fatigue - were due to a neurological disorder caused by the bombing pressure wave. Thus, the term «shell shock». However, it was soon recognized that it was not necessary to expose the solders to enemy fire to develop «shell shock».

It was the spirit of the era to treat solders affected in psychiatric hospitals far from the front and not in the medical posts just behind the enemy lines as was done during the continuation of the First World War and the Second World War.

Since the patients were hospitalized for long periods in hospitals very far from the battle field, it is not surprising that they developed an introspective psychoanalytic approach and that the search for previous childhood traumas

played an important role in the treatment of «shell shock». However, there were practical approaches[19].

In the German front, the solders who suffered «Kriegsneurose» (war neurosis) were often treated with the «Kauffman treatment», which meant electroshock treatment to exclude conversion signs. The Kauffman treatment also became popular among the allied forces and was used by the military physicians in the allied field, even when the problem of lack of solders became urgent due to the long duration of the conflict. The Kauffman method of overwhelming electroshocks *(Überrumpelung)* was used by Lewis Yealland, a Canadian resident in the United Kingdom: an electric current applied to the throat and the limbs. In theory, it was supposed to free the affected area from paralysis. The therapy of Wilfred Owen was less rigorous. He was a fervent supporter of long walks, cold baths, getting up early, physical exercise, etc.[20]. The term *«shell shock»* was no longer used in the Second World War. In its place, the term «combat fatigue» was used[21]. This change in terminology reflects a different approach. What was first considered to be a hardly reversible blow to the psyche is now considered to be an acute stress reaction that can be treated with sedatives and rest in a few days or weeks behind the lines.

The historic military Sheppard[22] describes how another approach to stress shock had developed, based on experiences with shell shock, prior to the Second World War. Using a report from a meeting held in 1939 in which psychiatrists and physicians who had served in the First World War attended, the following policy was observed:

- The quasi-medical terms such as shell shock should not be used for either patients or towards the press.
- Pensions would not be granted to soldiers with psychiatric disorders.
- Psychotherapy should be reduced to a minimum; emphasis should be placed on the curative power of social pressure.
- Enlistment should focus on maintaining vulnerable persons outside of the armed forces.

Shephard wrote on the psychiatrist Ross, who had visited hospitals in the North of London to speak with physicians and nurses on the dangers of extensive psychotherapy in persons who developed anxiety due to the war, as occurred during the First World War. He warned that a similar approach would make them neurotic persons; it would be better to strengthen their moral. According to this approach, those persons with psychiatric complaints after a bombing in London were told that lack of capacity to speak, tremor and other physical symptoms were normal reactions to that which they had experienced and that nervous breakdown was their main problem. They were told that the best solution was to return home or stay with friends, rest for a few days (with or without the help of sedatives) and then return to their normal daily activities after a few days. Not many pensions were granted to those suffering psychic problems due to the Second World War and motivation of extensive psychotherapeutic treatment decreased. The British government also learned from this experience. In 1932, 36 % of the war pensions that had been granted were for psychiatric diseases, even though the psychiatric victims during the wars were 4 %.

For Sheppard[23], the force of this approach was to give normal people a clear and simple model of how to act in unfavorable situations. This approach was according to the British culture of «one must try to put a brave face on it».

He observed that this national characteristic of not showing any weakness occurred in all the society levels.

This attitude of the psychiatrists, who were increasingly faced with the delayed effects called post-concentration camp syndrome towards the war victims, changed in the 1960's and 1970's, above all due to the survivors of the holocaust. More attention was also given to the consequences of other traumas, as is observed from new terms such as rape trauma syndrome, battered child syndrome, Stockholm syndrome, survival syndrome and post-Vietnam syndrome.

It has been learned from the two world wars that it is not useful to treat human anxiety with medication. This was completely forgotten when the new entity «post-traumatic stress disorder» was formulated. At that time, the ideal treatment was created for PTSD: not leaving the victim alone after the trauma, but giving him the opportunity to speak about his experience with an adviser, sometimes in the presence of other trauma victims. Different types of evaluation techniques were developed. The traumatic reaction was not considered to be a normal human reaction to dreadful events, but rather a medical disorder that could occur to anyone if the trauma was sufficiently serious. It was no longer seen as a human anxiety that was as old as man himself, but rather as a very specific psychic reaction, which can eventually be untangled to its biological and pathophysiological roots. An importance consequence of this change in attitude is that a large amount of money was invested in the investigation of the biological cause of the reaction to trauma[24,25]. However, in the nineties, resistance against this medical diagnosis and treatment approach developed[26].

It is interesting that the importance or seriousness of the trauma was not considered as a prediction factor[27].

It is deduced from investigations that the evaluation was not optimum[28] and that it could even have a contrary effect[29]. At present, it is best to respect the existing premorbid strategy of approaching the problems in the patient. Using medication for the situation weakens the person's capacity to assume responsibilities. Many patients accept suggestions and thus it is best to not use medication for the problems[30,31].

It is deduced from investigations[32] that premorbid personality and intelligence were important vulnerability deter-

minants. It was determined that education, a previous trauma and a generally miserable youth were, although with variable strength dependent on the population studied and the methods used, consistent indicators of PTSD. Factors such as psychiatric history, abuse during childhood and a familial psychiatric history were determined to be more uniform indicators.

Separately, the effect of all the risk factors had little importance, but the factors that occurred after the trauma, such as lack of social support and more stress in life had a larger effect.

Emsley et al.[7] examined 124 members of the South African Security Forces, who were candidates to be retired due to post-traumatic stress disorder (PTSD) from the medical point of view. They had been exposed to violence and disturbances for many years. One result that was significant was that the long duration of the exposure to incidences related with the service (16.9 ± 7 years) preceded the onset of significant symptoms. In reality, their conclusions suggest that the post-traumatic factors may be as important as the pre-traumatic and peri-traumatic variables in the PTSD development. The authors concluded that, based on the factors which, as a whole, determined PTSD seriousness, the role of the possibilities of not receiving compensation and lack of social support were as important as the premorbid factors and trauma seriousness. Naturally, this does not mean that the traumatic events did not cause suffering. It would be absurd to deny the acute stress reaction, which may be followed by panic disorders or depression. The question is that the treatment established in the years 1980 and 1990 tends to increase the symptoms instead of improving the situation. Human anguish has always existed, but it is not a specific pathogenic agent that leads to a culture independent specific syndrome. In addition, the consequences of the acute reaction of stress differ greatly from the way they occur in our Western society than from those of other cultures.

Merridale[33] writes on the post-Soviet culture to solve traumas: PTSD is surely not a diagnosis that they were looking for. Up to a certain point, the fact that mental disorders, instead of having compensation, were stigmatizers in the post-Soviet Russia, may explain his attitude. However, there are also other reasons. The individual is not the center of all the human settings. Words such as «collectivity» and «social security benefits» arise when the old Soviet citizens try to explain why Stalin's Russia did not fall under the weight of hopelessness (page 361).

He compares this with the characteristic offered by the individualism of the United States of America citizens as a complaining culture[34]. It is a correct decision to not use medication in this situation and to give social support and religious solace later on to manage a post-catastrophic stress reaction instead of endorsing the patient with a diagnosis[35].

REPETITIVE STRAIN INJURY

The Association of Repetitive Strain Injury (RSI)[36] defines RSI in the following way: «This is the term that was previously given to muscle, nerve, tendon, tendon sheath and other soft tissue problems, generally in the upper limbs, as a consequence of overload or incorrect use. However, the lower limbs, the posterior part of the shoulder and other parts of the body may also be affected. Unfortunately, the term does not adjust to the conventional criteria for the description of diseases and this may lead to confusions since they involve the existence of a non-identifiable caused physical condition.»

It can be questioned if a disease that does not adjust to the conventional description can be thus called. The scientific basis requires a pathological condition, which, if it is not possible to identify it as such, in any case, it is supposed to be present. It is not correct to include together a number of diseases with a pathological process that can be seen microscopically, such as lateral and medial epicondylitis, bicipital tendinitis, ulnar neuritis, olcranon bursitis, de Quervain's stenosing tenosynovitis, ulnar injury, digital flexor tenosynovitis and carpal tunnel syndrome and those diseases in which this is not the case. The former diseases have well-defined subjective symptoms, objective and reproducible clinical results, a recognizable histopathology and specific effective treatment. It makes no sense to group the diseases identified and to be identified with those that cannot be identified in this way in a group of patients with vague discomfort in their hands, arms and shoulder region under the common name of RSI.

The deception is even greater since the existence of a clear disease or a connection with a repetitive movement as well as the fact that it is a problem of injury for this group has never been verified. Thus, the diseases with a clear pathology occur both within the working population as well as the non-working one.

Bell[37] called the RSI forms that could not be identified by a pathology as pseudo-illnesses. There is the danger that the expansion of such pseudo-illnesses cannot be stopped. This will be even more important when there are secondary gains linked to it, for example, the advice to take sick leave until the symptoms improve. In Australia, the number of RSI cases in the 1980's reached epidemic forms. This is attributed to an agreement between the trade unions, politicians and press to protect the workers[38].

After a resolution of the Supreme Court of Justice in 1987, in which the claim of a patient regarding refusal of sick leave due to the diagnosis of RSI was rejected, the number of cases of this form of secondary gains decreased. In the state of Victoria, for example, all the work related diseases decreased by 15 % in 1985 and to 4 % in 1996[39].

Thus, the RSI is also called the «Australian disease» (although it has also been known as the «Dutch disease»

since a short time ago due to the epidemic forms that the disease acquires in Holland[40]. All this was preceded by an epidemic in the United States, which has already passed its culminating time[41].

On the other hand, not everyone who is diagnosed of RSI, due to the lack of something better, is a malinger and unwilling to work. The diagnosis is also related with satisfaction at work[42] and with neurotic problems[43], which correspond to the psychologist or psychiatrist.

To emphasize again the specific lack of details of the diagnosis of painful discomfort, the following experiment can be mentioned: Horal[44] examined two groups with the same number of patients, grouped by demographic variables, under control of the medical practitioner. One of the groups had vague pains in the lower part of the back and the other had other discomforts. However, the second group also had pain in the lower part of the back, comparable with the patients of the first group. The pain partially seemed to be an unavoidable fact. Not all real or imaginary pain, if this distinction can be made, is caused by an abnormality in health.

WHIPLASH INJURY

Whiplash is the popular name given to hyperextension of the cervical vertebras followed by their hyperflexion. This occurs in an unexpected acceleration-deceleration of the body, which causes a sudden backwards and then forwards movement if the head has no support[45]. According to Ferrari, Russel and Richter[46], the crash tests performed in the 1940's, when such tests were performed on live subjects and not with dummies, did not increase the somatic as well as psychic long-lasting symptoms. Ferrari considered that the persistent discomfort, grouped as a whole under the term of whiplash syndrome, developed secondary gains as the result of a combination of iatrogenic injuries, suggestionability, and attention from the communication media as well as the presence of a compensation claim.

The somatic symptoms of whiplash are neck pain, its limited movement, head pain, sometimes pain in the thoracic vertebra, diffuse pain and paresthesis in the limbs[47]. These symptoms generally disappear in some days or weeks, but may follow a chronic course and recovery may take 6 months or more[48].

The psychiatric disorders that are considered to be a reaction or that accompany whiplash are anxiety disorder and depression. PTSD, in which the events are relived as retrospective scenes or nightmares, as seen in serious traffic accidents, are not frequently observed[49]. The symptoms generally occur as a consequence of an accident, but an organic condition has never been found[46] and thus, the clinical image has been recognized as a functional disorder. Here the word functional has been used in the sense of abnormal functioning of an organic and not as a consequence of a recognized structural change[50]. This functional disorder occurs less often in cultures and societies that do not provide medical treatments or support for whiplash, such as Singapore[51], Lithuania[52] and Greece[53].

These countries have a very low or perhaps non-existent frequency of chronic whiplash, perhaps because it seems that there is no cultural information to stimulate this chronic pain behavior that is observed in other cultures.

The investigation also demonstrated that the symptoms might also decrease due to the Cassidy et al. law[6]. They investigated the connection between economic compensation, frequency and prognosis of whiplash injury in the Canadian province of Saskatchewan.

They gathered information, anonymously provided by the whiplash victims, on their depressive symptoms, pain and physical function before and after January 1, 1995. On this date, the compensation system for traffic injuries, which included payments for pain and suffering, changed to a system that did not admit the guilty factor and excluded these compensations. To determine if this change had a relationship with the decrease in claims and better recovery after the whiplash injury, a representative investigation was performed among persons who made an insurance claim for traffic injuries between July 1, 1994 and December 31, 1995.

The frequency of claims between the first and second system and the two periods in which guiltiness did not enter as a whole decreased by 43 % among men and 15 % among women. The mean time from the date of the injury to the end of the compensation claim decreased 50 %.

In both systems, neck pain intensity, physical functioning level and presence or absence of depressive symptoms had a clear relationship with the time when the compensations finished. The authors concluded that the legal elimination of compensation due to pain and suffering had a relationship with the lower frequency of events and better prognosis of whiplash injury. There is also a relationship between compensation claim duration due to whiplash and the seriousness of the depressive symptoms as well as pain and physical dysfunction of which the patients anonymously reported.

CONCLUSIONS

Freud's theory on the link between conscious secondary gain and the unconscious need to be ill explains why some patients that we have under treatment seem to become more ill, although there is no clear pathogenic explanation for it. This article discussed how and why the patients are more prone to secondary gain and enter easily into the unconscious need to be ill in three medical disorders, PTSD, repetitive strain injury (RSI) and Whiplash injury. This article

also explained why these disorders are becoming more common. Psychiatrists want to help persons with psychic problems. However, the therapists are limited by the regime «primum non nocere» (first do no harm). Naturally, this old rule tries to avoid undesired good intentions, in this case too much therapeutic enthusiasm. We should be aware that any form of help, although well-meaning, might be harmful.

NOTE

This article was presented as a lecture at the International Congress of the World Association of Psychiatry in Caracas, on October 1, 2003.

REFERENCES

1. Diagnostic and Statistical Manual of Mental Disorders, 4.ª ed. Washington: American Psychiatric Association, 1994.
2. van Egmond JJ. Multiple meanings of secondary gain. Am J Psychoanal 2003;63:135-45.
3. Freud S. Vorlesungen zur Einfuerung in die Psychoanalyse Gesammelte Werke XI. Frankfurt: S. Fischer Verlag, 1917; p. 397-400.
4. Freud S. Abriss der Psychoanalyse. Gesammelte Werke XVII. Frankfurt: S. Fischer Verlag, 1940; p. 63-138
5. Frueh BC, Elhai JD, Gold PB, Monnier, J, Magruder KM, Keane TM. Posttraumatic stress disorder. Psychiatric Services 2003; 54:84-91.
6. Cassidy JD, Carroll, LJ, Cote P, Lemstra M, Berglund A, Nygren A. Effect of eliminating compensation for pain and suffering on the outcome of insurance claims for whiplash injury. New Engl J Med 2000;342:1179-86.
7. Emsley RA, Soraya S, Stein DJ. Posttraumatic stress disorder and occupational disability in South African Security Force Members. J Ment Dis 2003;237-41.
8. van Egmond JJ, Kummeling I. A blind spot for secondary gain affecting therapy outcomes. Europ Psychiatry 2002;17:46-54.
9. Pearce, JM. Psychosocial factors in chronic disability. Med Sci Monitor 2002;8:275-81.
10. Hofmann B. On the triad disease, illness and sickness. J Med Philosophy 2002; 27: 651-73.
11. Diagnostic and Statistical Manual of Mental Disorders, 3.ª ed. Washington: American Psychiatric Association, 1980.
12. Nace EP, Meyers AL. The prognosis for addicted Vietnam returnees: a comparison with civilian addicts. Comprehensive Psychiatry 1974;15:49-56.
13. Robins LN, Helzer JE, Davis DH. Narcotic use in southeast Asia and afterward. An interview study of 898 Vietnam returnees. Arch Gen Psychiatry 1975;32:955-61.
14. Goodwin DW, Davis DH, Robins LN. Drinking amid abundant illicit drugs. The Vietnam case. Arch Gen Psychiatry 1975;32:230-3.
15. Helzer JE, Robins LN, Davis DH. Depressive disorders in Vietnam returnees. J Nerv Mental Dis 1976;163:177-85.
16. Lippmann SB, Pary R, Turns DM, Tobias CR. Post-traumatic stress disorder in Vietnam veterans. Am Fam Physician 1988;37:145-50.
17. Hume J, Summerfield D. Traumatic stress disorders. Br Med J 1991;16:1271.
18. Withuis J. Erkenning. Van oorlogstrauma naar klaagcultuur. Amsterdam: Bezige Bij, 2002.
19. Hinshelwood RD. Psychoanalysis in Britain: points of cultural access, 1893-1918. Internat J Psychoanalytics 1995;76:135-51.
20. Hibberd D. A sociological cure for shellshock: Dr. Brock and Wilfred Owen. Sociolog Rev 1977;25:377-86.
21. Lamprecht F, Sack M. Posttraumatic stress disorder revisited. Psychosom Med 2002;64:222-37.
22. Shepperd B. Pitiless psychology: the role of prevention in British military psychiatry during the Second World war. History of Psychiatry 1999;10:191-214.
23. Shepperd, B. A war of nerves, soldiers and psychiatrists 1914-1994. London: Jonathan Cape, 2002.
24. van der Kolk BA, Fisler RE. The biologic basis of posttraumatic stress. Prim Care 1993;20:417-32.
25. Yehuda R. Biology of posttraumatic stress disorder. J Clin Psychiatry 2001;62:41-6.
26. Bracken PJ, Giller JE, Summerfield D. Psychological responses to war and atrocity: the limitations of current concepts. Soc Sci Med 1995;40:1073-82.
27. Moreau C, Zisook S. Rationale for a posttraumatic stress spectrum disorder. Psychiatr Clin North Am 2002;25:775-90.
28. Devilly GJ, Wright R, Gist R. Função do debriefing psicõlgico no tratámento de vítimas de trauma. Rev Brasil Psiquiatra 2003.
29. Summerfield D. Debriefing after psychological trauma. Inappropiating exporting of western culture may cause additional harm. Br Med J 1995;311:509.
30. Fullerton CS, Ursano RJ, Vance K. Wang L. Debriefing following trauma. Psychiatric Quarterly Fall 2000;71:259-76.
31. Ruzek, J. Providing «Brief Education and Support» for emergency response workers: an alternative to debriefing. Military Med 2002;167:73-5.
32. Brewin CR, Andrews B, Valentine JD. Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. J Consul Clin Psychol 2000;68:748-66.
33. Merridale C. Night of stone. Death and memory in Russia. London: Granta Books, 2003.
34. Hughes R. Culture of complaint. The fraying of America. New York: Basic Books, 1993.
35. Meisenhelder J. Terrorism, posttraumatic stress, and religious coping. Issues in Mental Health Nursing 2002;23: 771-82.
36. Repetitive Strain Injury Association, 2003; 1 aug. http:// www.rsi.org.uk.
37. Bell, DS. Epidemic occupational pseudo-illness: the plague of acronyms. Current Review of Pain 2000;4:324-30.
38. Lucire Y. Neurosis in the workplace. Med J Austral 1996;145: 323-7.
39. Ireland DCR. Australian Repetition Strain Injury Phenomenon. Clin Orthopaed Related Res 1998; 351:63-73
40. Bongers PM, de Vet HC, Blatter BM. Repetitive strain injury (RSI): voorkeuren, etiologie, therapie en preventie. Nederlands Tijdschrift voor Geneeskunde 2002;146:1969-70.
41. Fast C. Repetitive strain injury: an overview of the condition and its implications for occupational therapy practice. Canad J Occup Ther 1995;62: 119-26.
42. Szabo RM, King KJ. Repetitive stress injury: diagnosis or self-fulfilling prophecy? J Bone Joint Surg 2001;83:137-14.

43. Graham G. Job satisfaction and Repetition Strain Injury. Adelaide: Elton Mayo, 1985.
44. Horal J. The clinical appearance of low back disorders in the city of Gothenburg. Acta Orthopaed Scand 1969;118:101-9.
45. Macnab I. Accelertion injuries of the cervical spine. J Bone Joint Surg 1964;46:797-9.
46. Ferrari R, Russell AS, Richter M. Epidemiologie der HWS Beschleunigungsverletzung. Ein internationales Dilemma. Orthopade 2001;30:551-8.
47. Spitzer WO, Skovron ML, Salmi LR, Cassidy JD, Duranceau J, Suissa S, et al. Scientific monograph of the Quebec Task Force on Whiplash-Associated Disorders: redefining «whiplash» and its management. Spine 1995;20:73.
48. Mayou R, Radanov BP. Whiplash neck injury. J Psychosomat-Res 1996;40:461-74.
49. Mayou R, Bryant B, Duthie R. Psychiatric consequences of road traffic accidents. Br Med J 1993;307:647-51.
50. Silber TJ. The differential diagnosis of functional symptoms in adolescence. Adolescence 1982;17:769-78.
51. Balla JI. The late whiplash syndrome: a study of an illness in Australia and Singapore. Culture Medicin Psychiatry 1982;6: 191-210.
52. Ferrari R, Obelieniene D, Russell A, Darlington P, Gervais R, Green P. Laypersons' expectation of the sequelae of whiplash injury. A cross-cultural comparative study between Canada and Lithuania. Med Sci Monitor 2002;8:728-34.
53. Ferrari R, Constantoyannis C, Papadakis N. Laypersons' expectation of the sequelae of whiplash injury: a cross-cultural comparative study between Canada and Greece. Med Sci Monitor 2003; 9:120-4.