Unexplained physical complaints amongst prison inmates: diagnosis and treatment

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ABSTRACT

Daily physiological processes, excessive physical fatigue, sub-clinical viral infections and certain environmental situations can all cause some kind of physical pain or distress in 75% of adults in a typical week. When the individual refuses to accept medical opinion and attributes the pain to a physical illness and persistently seeks diagnosis and treatment, then there is a possibility of an unexplained somatic problem. Depression, anxiety or even a personality disorder may be causative factors.

The lack of studies of this type of disorder in the prison environment makes it difficult to fully evaluate the importance of this phenomenon for primary health care consultation in prison, despite the fact that the number of presented unexplained somatic complaints may well be the same as in the community (around 15%).

Management of this type of patient is always difficult, complex and emotionally demanding for the health care professional.

Key words: Somatoform Disorders, Review Literature, Prison.

THE CONCEPT OF SOMATIZATION: WHAT IS AND WHAT IS NOT SOMATIZING.

A) PERCEPTION OF SOMATIC SYMPTOMS IN THE HUMAN BEING:

Experiencing somatic symptoms is a very usual occurrence in the human being. In fact, studies on this topic show that 75% of healthy adults suffer from some kind of physical pain or distress in a typical week (1). There are three causes which could produce these symptoms (1): 1- daily physiological processes, such as breathing, digestion, circulation and hormonal changes of the endocrine system. 2- conditions which are not illnesses: changes in the diet, excessive physical fatigue and sub-clinical viral infections are the most relevant but only produce minimal pain. 3- the environment: environmental factors such as extreme heat or cold, excessive light, humidity or noise, environmental pollution (tobacco smoke, for example), storms or climate changes, etc.

That is to say, experiencing somatic symptoms regularly is a normal condition in the human being and is not regarded as a mental illness. Somatization should only be considered and classified as a medical problem, when the individual attributes the pain to a physical illness and persistently seeks medical diagnosis and treatment, although doctors have reaffirmed that the individual does not suffer from any serious physical illness which would be producing those symptoms.

B) THE CONCEPT OF SOMATIZATION: the concept of somatization always comprises three components (2):

— EXPERIENTIAL: it expresses what the individual perceives regarding his body, either pain or other bodily conditions which are unusual, dysfunctional or related to a change of appearance. Generally only the individual himself is aware of it and it is difficult for the clinician to evaluate it and therefore he tends to under estimate it.
— COGNITIVE: it is based on the interpretation that the individual makes of these perceptions and to what he attributes them, that is to say, the subjective meaning they have to him. It also includes the process of decision-making which arises from here. In the case of somatisers, somatic sensations are interpreted as a threatening illness or one which can produce pain in the body and that is why he seeks the help of the doctor. This health risk conviction persists even though the doctor has reaffirmed the contrary.

— BEHAVIOURAL: it comprises actions, verbal and non-verbal communication that follow such attributions. Typically, although by no means always, the individual takes the decision to seek advice or treatment in medicine or other paramedical alternatives. Not all individuals though follow this course of action: some self-medicate, seek advice from friends or dedicate themselves exclusively to complain to their relatives or people who are not professionals. From the point of view of the health care system, those seeking medical help, above all persistently, represent a serious health problem in the community.

C) WHAT IS A “SOMATIZING” PATIENT?
At present, a somatizing patient is defined as a patient who fulfills the criteria identified by Bridges and Goldberg (3). Table I shows a summary of those criteria.

1. The patient seeks the doctor’s advice regarding somatic symptoms.
2. The patient attributes his symptoms to an organic illness and not to a mental disorder.
3. There is a psychiatric disorder which can be diagnosed according to the current psychiatric classifications.
4. In the doctor’s opinion, treatment for the psychiatric disorder would improve physical symptoms.

<table>
<thead>
<tr>
<th>Criteria for somatizing patient (3)</th>
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</tr>
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<td>3. There is a psychiatric disorder which can be diagnosed according to the current psychiatric classifications.</td>
</tr>
<tr>
<td>4. In the doctor’s opinion, treatment for the psychiatric disorder would improve physical symptoms.</td>
</tr>
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</table>

Although criticism has arisen for this definition, regarding the fourth criteria above all, since it could be considered subjective (4), it has been widely accepted in order to conceptualize what a somatizing patient is. This definition covers, for the most part, patients who meet the diagnosis criteria for depression, anxiety and adjustment disorders. Less than 10 % of them only meet the diagnosis criteria for somatoform disorders (5), which constitute the “tip of the iceberg” of somatic phenomena, since it represents the most chronic and disabling forms.

An important classification among somatizing patients has to do with evolution over time (3): acute or sub-acute somatisers refer to those whose symptoms last for less or equal to 6 months. Those correspond to depression, anxiety or adjustment disorders which appear in the form of somatic symptoms.

These three groups of diseases are presented as being somatic three times more frequently than being presented as psychological (3, 5). And therefore, some authors have suggested to have it specified in the next DSM, within major depression disorder, under the epigraph “presentation in the form of somatic symptoms” (6).

On the other hand, chronic somatisers refer to patients whose illness last for more than 6 months. These conditions are associated with somatoform disorders.

SOMATOFORM DISORDERS

Somatoform disorders are a group of psychiatric illnesses within the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), produced by the American Psychiatric Association, fourth edition (7), characterized by physical symptoms that suggest a medical condition. However, there is no evident organic cause and no known pathophysiological mechanism that fully explains them. On the other hand, there is a reasonable presumption that such symptoms are associated with psychological factors or with stress.

The category of somatoform disorders was created in 1980, when it was first described in the DSM-III, and the validity of its concept has been wildly questioned. The main argument in favour of its utilization is its unquestionable clinical use. However, there is a series of nosological difficulties that have not been solved and which are presented below:

A) AXIS 1 CO-MORBIDITY: Axis I co-morbidity in patients with somatoform disorders is very high. For example, in the case of somatization disorder among the Spanish population, our group found co-morbidity in 85% of these patients (8), with principally depression and anxiety disorders, as shown in Table II.
AXIS II CO-MORBIDITY: psychiatric axis II co-morbidity in patients with somatoform disorders is also very high, accounting for more than 50% in most categories of this section, as shown in Table III. This fact has led some authors to recommend its inclusion in Axis II, because they consider that somatoform disorders constitute a personality change in the individual rather than psychiatric disorders (9).

### Table II. Psychiatric co-morbidity in patients with somatization disorder among the Spanish population (8).

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dysthymia</td>
<td>40%</td>
</tr>
<tr>
<td>Generalized anxiety disorder</td>
<td>25.7%</td>
</tr>
<tr>
<td>Distress disorder</td>
<td>22.8%</td>
</tr>
<tr>
<td>Analgesic drug abuse</td>
<td>20%</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>17.1%</td>
</tr>
<tr>
<td>Major depression</td>
<td>5.7%</td>
</tr>
<tr>
<td>Unspecified depression</td>
<td>5.7%</td>
</tr>
<tr>
<td>Others</td>
<td>14.2%</td>
</tr>
</tbody>
</table>

Table III. Axis II co-morbidity in patients with somatoform disorders (9)

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somatization disorder</td>
<td>72%</td>
</tr>
<tr>
<td>Hypochondriasis</td>
<td>63%</td>
</tr>
<tr>
<td>Pain disorder</td>
<td>59%</td>
</tr>
<tr>
<td>Body dysmorphic disorder</td>
<td>65%</td>
</tr>
</tbody>
</table>

DIFFERENT DIAGNOSIS CRITERIA IN THE TWO MAIN PSYCHIATRIC CLASSIFICATIONS: There are important differences in the description of the group of somatoform disorders between the two main psychiatric classifications, the *International Classification of Diseases* 10th edition (ICD-10) produced by the World Health Organisation (10) and the DSM-IV (20), as shown in Table IV. The main consequence of these differences is that when somatoform disorders, such as the somatization disorder, are compared in ICD-10 and DSM-IV, the concordance indexes are so low (kappa=0.53) that it is impossible to compare research studies using both diagnosis criteria (11).

The main differences between the two classifications are as follow:

1. Conversion disorders are included within somatoform disorders in DSM-IV but ICD-10 prefers to group them together with dissociative disorders since, by this means, the conceptual niche of classic hysteria is conserved.
2. ICD-10 includes a category called somatoform vegetative dysfunction which does not exist in DSM-IV and which should be inserted into the undifferentiated somatoform disorder.
3. ICD-10 does not give the body dysmorphic disorder a different conceptual category but considers it a sub-type of hypochondriasis. In DSM-IV, it constitutes a different entity.
4. ICD-10 includes chronic fatigue syndrome in a different chapter, but DSM-IV does not accept this disorder.

All these circumstances have determined that, at present, the section of somatoform disorders is one of the most criticized sections of psychiatric classifications.

### Table IV. Classification of somatoform disorders in ICD-10 and DSM-IV with their relative correspondences.

<table>
<thead>
<tr>
<th>ICD-10</th>
<th>DSM-IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>F 45.0 Somatization disorder.</td>
<td>Somatization disorder.</td>
</tr>
<tr>
<td>F 45.1 Undifferentiated somatoform disorder.</td>
<td>Undifferentiated somatoform disorder.</td>
</tr>
<tr>
<td>F 45.2 Hypochondriacal disorder</td>
<td>Hipochondriasis</td>
</tr>
<tr>
<td>F 45.3 Somatoform vegetative dysfunction</td>
<td>Included in undifferentiated somatoform disorder.</td>
</tr>
<tr>
<td>F 45.4 Somatoform pain disorder</td>
<td>Pain disorder</td>
</tr>
<tr>
<td>F 45.8 Other somatoform disorders</td>
<td>Inexistant</td>
</tr>
<tr>
<td>F 45.9 Somatoform disorder, unspecified</td>
<td>Somatoform disorder, unspecified</td>
</tr>
<tr>
<td>Included in F 44. Dissociative disorder</td>
<td>Conversion disorder</td>
</tr>
<tr>
<td>Included in F 45.2 Hipochondriasis</td>
<td>Body dysmorphic disorder</td>
</tr>
</tbody>
</table>
CLINICAL SIGNIFICANCE OF SOMATOFORM DISORDERS

The clinical significance of somatoform disorders for the health care system in any country depends on the following four factors:

1. HIGH PREVALENCE: According to the RCT study (Random Clinical Trials), prevalence of somatoform disorders in general population varied from 0.38% (12) to 4.4% (13) depending on the number of symptoms required. In primary care, and according to data from our country (14), it is estimated that more than 1% of patients who have consulted their family doctor for a new episode of illness are diagnosed with a somatization disorder-related illness. Prevalence of this group of illnesses is also important in hospitals, since 15% of patients seen in the psychiatric liaison and interconsultation departments show somatoform disorders (15).

2. POOR QUALITY OF LIFE: Although the disability caused by somatoform disorders is similar to that associated with other psychiatric disorders (16), the quality of life of these patients is poorer than that of other patients with chronic disorders such as AIDS, cancer, diabetes, Parkinson disease or heart diseases (17). In fact, these patients report the poorest quality of life of all organic and psychiatric illnesses studied (18).

3. HIGH HEALTH CARE COST: Somatization accounts for 10% of total health care expenditure in any developed country (19). Such cost does not include invalidity or sickness leave expenses. Mean annual cost per patient with somatization disorder amounts to 1,000 dollars (20).

4. DIFFICULT MANAGEMENT FOR HEALTH CARE PROFESSIONALS: regarding relationship with health care professionals, somatisers are considered one of the most difficult patients. The reason is that no matter which treatment is offered to them, they are usually discontented with it and seek continuous and unjustified medical help (21). As a result, a high percentage of doctors refuse to treat these patients due to the feeling of frustration and anger that they tend to produce in the professional (22).

SOMATOFORM DISORDERS IN THE PRISON SETTING

The bibliographic review that has been conducted in Medline and Embase since 1966 with the key words “somatization”/“somatoform disorders” and “prison”/“jail” has proved that no specific studies have been carried out regarding this matter. Prevalence of somatoform disorders can be deduced from studies on psychiatric pathology in general that have been carried out in this setting (23, 24) and, from these data, determine that the prevalence of these somatoform disorders in this population is similar to that found in primary care, that is to say, between 5 and 15%.

In order to get as close as possible to the characteristics of somatizing patients in the prison setting, some of the most frequent psychiatric disorders (substance abuse and personality disorder) and their association with somatoform disorders have been analysed in this population.

a) PERSONALITY DISORDER: As the studies mentioned above have confirmed (23, 24), personality disorder is the most prevalent psychiatric illness in prisons, accounting for 50-75%. Co-morbidity between personality disorder and somatoform disorders is significant as we have already commented on earlier. However, there are few studies regarding the specific sub-types of personality disorders associated with somatoform disorders. Our group has recently published a controlled study, using a wide sample (n=70) (25), on this matter. In our study, specific personality disorders with greater odds-ratio compared to the general population corresponded to paranoid personality disorder (Odds Ratio=9.2; 95% Confidence Interval=1.9-43); obsessive-compulsive disorder (OR=6.2; 95% CI=1.2-53.6); and histrionic personality disorder (OR=3.6; 95% CI=0.9-13.9). Those would be the most intensely associated and therefore some of the most frequently seen in the prison population. Logically, borderline personality disorder would have to be added (which is the most frequent in any population, including in individuals with no mental illness in Axis I) and antisocial personality disorder, which is the most intensely associated with the situation which results in loss of freedom.

b) SUBSTANCE ABUSE: Co-morbidity between substance abuse and somatization varies, obvi-
ously, according to the level of care where it is studied. Table V shows a summary.

<table>
<thead>
<tr>
<th>Level of care</th>
<th>Drug abuse/ addition</th>
<th>Alcohol abuse/ addiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>No data</td>
<td>17.7%</td>
</tr>
<tr>
<td>Primary health care</td>
<td>4.9%</td>
<td>21%</td>
</tr>
<tr>
<td>Outpatient consultations</td>
<td>23.1%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Hospitalization</td>
<td>31.2%</td>
<td>43.4%</td>
</tr>
</tbody>
</table>

Table V. Co-morbidity of somatization and substance abuse according to the level of care. (26)

Nevertheless, when comparing the relative prevalence rather than the absolute prevalence, co-morbidity with alcohol/substance abuse/addiction is the same than that in the population at large. When the analysis is carried out from the inverse perspective, that is to say, the percentage of patients with alcohol/substance abuse/addiction and who present somatoform disorders, figures correspond to about 4.6% which is also similar to those of the population at large (26).

However, patients with co-morbidity of somatization with alcohol/substance abuse/addiction show specific characteristics (26), which we have summarized below and which will be found in patients in the prison setting:

- Hyperconsultant: it refers to patients who have been hospitalized at least 10 times in 8 years or who see their doctor more than once every 15 days (although many different definitions exist and no total agreement for this term).
- Low treatment adherence: the previous point shows that those patients have a higher tendency to seek treatment, but they also interrupt it more easily.
- Demanding and manipulating style. The management of the relationship between patient and doctor (it would be the same in all the other interactions, e.g. with the prison wards) is determined by this pattern.

Phenomenon of somatization, manipulation, immature defences and increase of mental illness in general have also been observed in specific populations such as incarcerated adolescents (27) and in incarcerated mothers who have been separated from their children (28). For this profile of functioning, it is supposed that various causal factors which include biochemical, personality, educational and interactional development with its environment throughout his life exist.

All this involves low tolerance to frustration and a constant need for stimuli,

### TREATMENT OF SOMATOFORM DISORDERS IN PRISONS

**INTRODUCTION**

Obviously, it cannot be very different from the treatment usually offered in primary care. There is a series of well-known therapeutic recommendations suggested by the Smith’s group (29, 30). Table VI shows a summary of these recommendations.

1.- Patient must be seen by one doctor only; his family doctor.
2.- Regular consultations every 4-6 weeks must be planned.
3.- Conduct brief consultations and assure patient of the doctor’s continued availability.
4.- Always examine the area the patient is complaining about.
5.- Look for signs. Symptoms must be interpreted in a communicational context.
6.- Avoid diagnostic tests which are not essential in order to avoid iatrogeny and medical cost. They must be required based on signs rather than on symptoms.
7.- Avoid spurious diagnosis and unnecessary treatments.
8.- Calm and reassure.
9.- Appropriately refer to psychiatric services.

Table VI. Guidelines for good clinical practice for patients with somatoform disorders in primary care

The greatest difficulty in carrying out these programs is that chronic somatisers produce feelings of frustration and anger and cause great rejection for health professionals. In fact, when family doctors are surveyed, 70% of them refuse to give any type of psychological help to somatisers, although they are specially trained for it (31-33).

These feelings are increased in prisons, setting in which individuals show the dysfunctional characteristics mentioned previously.
b) PHARMACOLOGICAL TREATMENT: since no etiological treatment for the disease exists, a symptomatic approach is required. The main symptoms that these patients present are those of the psychiatric field (depression, anxiety and insomnia) and somatic symptoms (pain in different parts of the body is the main reference). For this reason, treatment is divided in these two epigraphs:

– PSYCHIATRIC SYMPTOMS: a common mistake in primary health is that antidepressants are not used (although depression exists, they are substituted by benzodiazepines), or set guidelines for low doses. Both must be avoided: benzodiazepines, which represent a certain risk of addiction in the general population, would be specifically contraindicated in incarcerated patients due to their tendency for habituation. Therefore, in the case of anxiety, the use of serotoninergic antidepressants or dual-acting ones that have a sedative effect such as duloxetine (60-120 mg/day), or mirtazapine (30-60 mg/day), or anxiolytics like pregabaline rather than benzodiazepines (100-200 mg/day is the usual anxiolytic dose) is recommended. In the case of insomnia, antidepressants which affect the action of serotonin such as trazodone (100 mg/day in night intake) rather than hypnotics should be used. If those are to be used, zolpidem or zopiclone are better than benzodiazepines. Finally, if in the case of depression, any kind of antidepressants in appropriate doses can be used.

– SOMATIC/PAIN SYMPTOMS: for somatic symptoms in general, and for pain specifically, dual-acting antidepressants such as duloxetine (60-120 mg/day), venlafaxine (150-225 mg/day) and mirtazapine (30-60 mg/day) are particularly efficient. In this case, serotoninergic antidepressants are not indicated since they would ease depression but not the pain. If necessary, they can be used together with anti-epileptics that have an analgesic effect such as carbamazepine (400-1,200 mg/day), oxcarbazepine (600-1,800 mg/day) but, principally, gabapentin (600-1,200 mg/day) and pregabaline (150-600 mg/day is the analgesic dose which is higher than the anxiolytic dose). Anti-epileptics and antidepressants can quite easily be used together. In addition to this, other analgesics in low and sporadic doses can occasionally be needed, taking in consideration that the prison population has a tendency for analgesic drug addiction.

– PSYCHOLOGICAL TREATMENT: regarding psychological treatment, different types of treatments have been tested at mental health level: cognitive-behavioural therapy, both in individual and group therapy (the most implemented and efficient), dynamic psychotherapy and, exceptionally other treatments such as the Gestalt type or family therapies. We are not going to describe them in this study since they correspond to the specialized field, because of the time it would take to do so, and for the training required to administer the treatment.

Nevertheless, we would like to draw attention to the EDUCATIONAL/SUPPORT MODEL, described by Smith (29, 30), which does not require special training and which is highly recommended in primary care. This model could perfectly be adapted to the prison setting. It is carried out in groups of 8-10 patients. Its objective is to encourage mutual help among participants, to share methods aimed at confronting physical symptoms, to increase the capacity of patients to express feelings and to enjoy the experience. It is structured in the form of 8 sessions, each lasting 90 minutes. It fosters an educational rather than a psychotherapeutic environment since it is much more accepted by patients. And this is even more relevant in the prison setting. Topics such as ways of confronting physical distress, assertiveness in interpersonal relationships, how to gain more control in every day life and how to solve problems are presented in each session. Studies show that patients who attend this group are healthier psychologically as well as physically and a better health in general is perceived by these individuals (29, 30).

CONCLUSION

As this study show, this is a very prevalent group of patients in all the health care levels, and among the prison population as well. They represent a great challenge for the health care system due to its high cost and difficult management. This study has focused on the clinical understanding of this phenomenon and on analysing the specific characteristics which could be shown in the prison setting, in order to facilitate its diagnosis. Some simple and efficient therapeutic strategies that are accessible to the health care professionals who work in this setting have also been outlined.
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