




# Pseudoceysis False Pregnancy in 25-Year-Old with Anxiety: A Case Report

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## Abstract

### Background

Somatoform disorder is a disorder characterized by the presence of multiple symptoms that cannot be explained or proven as physical symptoms. Patients with this disorder often undergo examinations and consultations with various healthcare centres about their complaints [1]. Doctors on duty in the emergency department often misdiagnose this disorder with other diagnoses. This can happen because of the need for more time to examine a patient in detail and thoroughly [2].

To establish a diagnosis of somatoform disorder, doctors require an elimination process to exclude symptoms and consider differential diagnoses for each symptom and sign, resulting in the somatoform diagnosis often being missed. The consequences of the imprecise diagnosis process of somatoform disorder on the first visit result in patients receiving a physical diagnosis that then encourages patients to focus on treating the organic disease [3].

### Case report:

This report discusses a 25-year-old married woman who has complaints of anxiety about her pregnancy. The patient insists that she is pregnant even though she has consulted several obstetricians. The complaints first appeared about three years ago since the beginning of her marriage. The complaints started when her family pressured the patient to have a child. The patient also complained of other symptoms, such as pain in several parts of her body, nausea, vomiting, intolerance to certain foods, and difficulty urinating despite having a strong urge to urinate. These complaints co-occurred with the patient's anxiety about her pregnancy. The patient has no history of psychiatric disorders use of illegal drugs, alcohol, or smoking.

### Conclusion:

Somatoform disorders are characterized by one or more somatic symptoms or fear of a serious illness in the absence of physical symptoms, resulting in significant distress or functional impairment. This condition is marked by symptoms that are believed and unquestioned by the patient and have been ongoing for years. Patients with somatoform disorders may also experience symptoms from other organ systems. In this condition, there are psychological stressors that can trigger these symptoms. These symptoms are not influenced by illicit drugs, alcohol, and nicotine use.

**Keywords:** somatoform, anxiety, pregnancy.

## Introduction

Somatoform disorders refer to a group of conditions that are distinguished by the persistent existence of physical symptoms without any medical explanation. Regardless of the specific subtype, all somatoform disorders share a common characteristic of persistent and overwhelming physical symptoms that cause significant distress and disruption to daily functioning [4]. Somatic Symptom Disorder (DSS) is the term more commonly used to refer to what was previously known as somatoform disorder, as per the updated criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM) V, which replaced DSM IV. In DSM IV, somatoform disorder is defined as a minimum of eight medically unexplained somatic symptoms originating from four different organ systems that have persisted for several years and started before the age of 30 [5].

One of the most common mental disorders is somatoform disorders, with estimated prevalence rates of 5-6% in the general population [5]. A meta-analysis study showed that the prevalence rate of patients with at least one somatoform disorder according to DSM or ICD diagnosis criteria in primary healthcare facilities was 26.2%, and the prevalence rate within one year was 18.9% [6]. The highest proportion of patient diagnoses was somatoform disorder, unspecified (F45.9) at 37%, while the least diagnosed patient condition was undifferentiated somatoform disorder (F45.1). Patients with somatoform disorders had significantly more comorbid symptoms, such as anxiety and depression, than those without this disorder [3].

Until now, the aetiology of somatoform disorders is still not clearly known. However, there are several risk factors associated with the development of these disorders, such as mental disorders, the loss of a parent, depression, being female, socioeconomic status, substance abuse (including illegal drugs and nicotine), and stress from school. Stress from school has a significant association with somatoform disorders. In addition, there are protective factors against somatoform disorders, such as emotional support, physical activity, satisfaction with school, and sufficient time for socializing. Studies have found that 54.3% of patients diagnosed with somatoform disorders will have an additional diagnosis within twelve months, such as anxiety and depression. Patients with somatoform disorders have a 24% likelihood of suicidal ideation and a 17.6% likelihood of attempting suicide [7], [8].

The pathophysiology of somatoform disorders involves a decrease in the modulation of neural activity in several parts of the brain, such as the bilateral parahippocampal gyrus, left amygdala, left postcentral gyrus, left superior temporal gyrus, and posterior left insula. Neural activation in the parahippocampal gyrus is involved in the process of inducing emotion from the recovery of emotional memories in patients. This is associated with disturbed repression of emotional memories that may occur [9].

Diagnosing somatoform disorders is a challenge for healthcare providers. A doctor requires good clinical skills to exclude one by one the somatoform diagnosis. Making a diagnosis in the emergency department can be more complicated due to the limited time available for examining patients and limited diagnostic equipment, such as sonography or blood gas analyzers [3]. The somatoform disorder criteria based on DSM IV are listed in Table 1.

**Table 1. Somatoform disorder criteria according to DSM IV <sup>10</sup>**

Criteria
<ul style="list-style-type: none"> <li>a. A history of many physical complaints beginning before age 30 years that occur over several years and result in treatment being sought or significant impairment in social, occupational, or other important areas of functioning.</li> <li>b. Each of the following criteria must have been met, with individual symptoms occurring at any time during the course of the disturbance:</li> </ul>

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- Four pain symptoms: a history of pain related to at least four different sites or functions (e.g., head, abdomen, back, joints, extremities, chest, rectum, during menstruation, during sexual intercourse, or during urination)
  - Two gastrointestinal symptoms: a history of at least two gastrointestinal symptoms other than pain (e.g., nausea, bloating, vomiting other than during pregnancy, diarrhea, or intolerance of several different foods)
  - One sexual symptom: a history of at least one sexual or reproductive symptom other than pain (e.g., sexual indifference, erectile or ejaculatory dysfunction, irregular menses, excessive menstrual bleeding, vomiting throughout pregnancy)
  - One pseudo neurological symptom: a history of at least one symptom or deficit suggesting a neurological condition not limited to pain (conversion symptoms such as impaired coordination or balance, paralysis, or localized weakness, difficulty swallowing or lump in the throat, aphonia, urinary retention, hallucinations, loss of touch or pain sensation, double vision, blindness, deafness, seizures; dissociative symptoms such as amnesia; or loss of consciousness other than fainting)
- c. Either (1) or (2):
- After appropriate investigation, each of the symptoms in Criteria B cannot be fully explained by a known general medical condition or the direct effects of a substance (e.g., a drug of abuse, a medication)
  - When there is a related general medical condition, the physical complaints or resulting social or occupational impairment are in excess of what would be expected from the history, physical examination, or laboratory findings.
- d. The symptoms are not intentionally feigned or produced (as in factitious disorder or malingering).
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Research has been developed regarding the treatment of somatoform disorders using psychotherapeutic methods in the last decade. A Cochrane review described the benefits of cognitive-behaviour therapy (CBT) for patients with somatoform disorders. Various types of psychotherapy are recommended for somatoform disorders, such as CBT, mindfulness-based interventions, acceptance and commitment therapy, and relaxation therapy. CBT is one of the effective psychotherapies for managing somatoform disorders by reducing physical symptoms, psychological distress, and disability. Additionally, specific psychotherapies, such as gut-directed psychotherapy, are designed for treating certain types of somatoform autonomic dysfunction, like irritable bowel syndrome [4], [11].

The main goal of implementing psychotherapy is to improve the patient's mental functioning, increase their verbalization of emotional and interpersonal issues, enhance their affect and perception, reduce medication abuse, and help patients gain control over their repressed wishes, desires, fears, or anxieties. Developing more mature defence mechanisms and coping strategies is a core aim. In the case of somatoform disorder, successful therapy can lead to better secondary process thinking, more mature defence mechanisms, improved "desomatization", and decreased somatic symptoms experienced by patients. The improvement in emotion recognition after therapy can be caused by the uncovering of repressed emotional conflicts and needs, which may have hindered emotion recognition in the pre-treatment stage [9].

### Case report

A 25-year-old woman named NS arrived with her husband at the general hospital, complaining about her anxiety over her pregnancy. The complaints first appeared three years ago, shortly after the patient got married. The patient was initially pressured by her family to have a child, and she felt that she was experiencing signs of pregnancy,

such as her stomach starting to grow shortly after getting married. However, after being examined by an obstetrician, it was determined that she was not pregnant. Negative Beta HCG results proved this examination. The patient persisted in her belief that she was pregnant and tried to seek the opinion of another obstetrician in different hospitals. However, after several examinations, all the obstetricians declared that she was not pregnant.

The patient also complained of pain in her back, stomach, knees, and genital area. She stated that the discomfort might be caused by the growth of the fetus in her uterus. The patient also claimed to be experiencing nausea and vomiting due to being in the first trimester of her pregnancy. She avoided fatty foods such as pork because it made her feel sick. The patient stated that these complaints started occurring when she felt pregnant. Since she believed she was pregnant, the patient had difficulty urinating, even though she had a strong urge to urinate. However, she could urinate normally when she was not thinking about her pregnancy.

The patient had no history of psychiatric or systemic illnesses before. The use of illegal drugs, alcohol, and smoking was denied. The patient's general condition and vital signs were within normal limits. During the mental status assessment, appropriate emotional expression and stable mood were observed. There was no evidence of disturbances in the thought process, orientation, perception, concentration, memory, abstract thinking, or reality testing. There was no history of auditory or visual hallucinations. The patient had not taken any medication to alleviate her complaints. Based on the symptoms presented, the patient was diagnosed with undifferentiated somatoform disorder (DSM IV-TR code 300.82, ICD 10 F45.9).

## Discussion

The diagnosis is based on diagnostic guidelines in the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV). Establishing a somatoform diagnosis is challenging for a doctor to distinguish whether a patient's symptoms originate from somatic or psychiatric issues [3]. Diagnosis is made by conducting interviews and excluding symptoms reported by the patient, physical examinations and additional testing if necessary.

The patient was interviewed, and it was revealed that she complained of feeling anxious about her pregnancy condition, which led her to consult an obstetrician. After physical examination and ultrasound testing, the obstetrician concluded that the patient was not pregnant and somatic complaints could be ruled out. The patient also complained of pain in her back, stomach, knees, and genital area. The patient also complained of nausea, vomiting, food intolerance, and pseudo-neurological disturbance, namely urinary retention. These complaints have been present since the beginning of the patient's marriage about three years ago. At that time, the patient was pressured by her family to get pregnant, indicating the psychological stressor experienced by the patient.

Based on DSM IV diagnostic criteria guidelines using the exclusion method, it can be established that the patient suffers from undifferentiated somatoform disorder (DSM IV-TR code 300.82, ICD 10 F45.9). This is based on the patient's symptoms that meet the somatoform criteria, namely anxiety about her pregnancy accompanied by various complaints originating from other organ systems and insistence on her complaints, as evidenced by the patient not trusting one obstetrician and seeking a second opinion despite receiving the same result, which was not being pregnant. These complaints have been recurring for three years, fulfilling the diagnostic criteria for somatoform disorder onset. The patient was diagnosed with undifferentiated somatoform disorder because she did not meet the diagnostic criteria for other differential somatoform diagnoses.

Delusion of Pregnancy is applied when there are no obvious physical signs of pregnancy, a distinct feature used to differentiate it from pseudocyesis, a somatic condition of having all signs and symptoms of pregnancy in the absence of a fetus [12].

In this case, the patient's psychological stressor stems from her family's pressure to have a child. Other risk factors present in the patient include being female, low social and familial support for her condition, and the patient's social condition.<sup>8</sup>

The social condition in a society that stigmatizes marriage and having children can worsen the patient's psychological condition, coupled with her family's demands.

SSRIs (Selective Serotonin Reuptake Inhibitors) are antidepressant medications that increase serotonin levels in the brain. Some commonly used SSRIs for treating somatoform disorders include fluoxetine, sertraline, and paroxetine. The dosage varies depending on the individual's condition and the body's response to the medication. However, the recommended starting dose is 10-20 mg daily, which can then be gradually increased to reach the appropriate therapeutic dose.

CBT (Cognitive Behavioral Therapy) is a form of behavioural therapy proven effective in treating somatoform disorder. CBT therapy focuses on changing the thought and behaviour patterns underlying somatoform symptoms so that individuals can cope with the stress and physical symptoms they experience. CBT therapy also involves relaxation and mindfulness techniques, which can help individuals deal with physical pain and discomfort. Effective management of somatoform disorder usually combines SSRI medication and CBT therapy. SSRIs can help reduce physical and emotional symptoms such as fatigue, pain, and other somatic symptoms. CBT therapy helps individuals manage stress and change thoughts and behaviour patterns underlying somatoform symptoms.

## Conclusion

Somatoform disorders are characterized by one or more somatic symptoms or fear of a serious illness without any physical symptoms, causing significant distress or functional impairment. Several factors contribute to the onset of somatoform disorders in patients, including psychological stressors from the family, being female, and the social conditions of the patient's place of residence. Support and assistance from the patient's close environment, such as family, are crucial for the improvement of the patient's condition and symptoms.

Delayed diagnosis of somatoform disorder can cause patients to focus on the physical symptoms they believe they have, resulting in mistreatment of the patient. Early detection and proper treatment can lead to a better prognosis, but this requires a good relationship and trust between the doctor and the patient, as well as patient compliance with the treatment and the support of the family.

## References

1. Chinneimawi E, Nagarajan P, Menon V. Caregiver Burden and Disability in Somatoform Disorder: An Exploratory Study. *Indian J Psychol Med.* 2021;43(6):500-507. doi:10.1177/0253717620957563.
2. Scamvougeras A, Howard A. Somatic Symptom Disorder, Medically Unexplained Symptoms, Somatoform Disorders, Functional Neurological Disorder: How DSM-5 Got It Wrong. *Can J Psychiatry.* 2020;65(5):301-305. doi:10.1177/0706743720912858.
3. Leutgeb R, Berger S, Szecsenyi J, Laux G. Patients with somatoform disorders: More frequent attendance and higher utilization in primary Out-of-Hours care?. *PLoS One.* 2018;13(8):e0202546. Published 2018 Aug 30. doi:10.1371/journal.pone.0202546.
4. Agarwal V, Nischal A, Prahara SK, Menon V, Kar SK. Clinical Practice Guideline: Psychotherapies for Somatoform Disorders. *Indian J Psychiatry.* 2020;62(Suppl 2):S263-S271. doi:10.4103/psychiatry.IndianJPsychiatry\_775\_19.
5. Mewes R. Recent developments on psychological factors in medically unexplained symptoms and somatoform disorders. *Front Public Health.* 2022;10:1033203. Published 2022 Nov 4. doi:10.3389/fpubh.2022.1033203.
6. Pohontsch NJ, Zimmermann T, Lehmann M, et al. ICD-10-Coding of Medically Unexplained Physical Symptoms and Somatoform Disorders-A Survey With German GPs. *Front Med (Lausanne).* 2021;8:598810. Published 2021 Mar 30. doi:10.3389/fmed.2021.598810.
7. Alanazi AO, Aljohani RA, Aljohani MF, et al. Epidemiological Features and Clinical Manifestations of Patients With Somatoform Disorder at a Tertiary Medical City in Riyadh, Saudi Arabia. *Cureus.* 2021;13(11):e19799. Published 2021 Nov 22. doi:10.7759/cureus.19799.
8. Feussner O, Rehnisch C, Rabkow N, Watzke S. Somatization symptoms-prevalence and risk, stress and resilience factors among medical and dental students at a mid-sized

- German university. *PeerJ*. 2022;10:e13803. Published 2022 Aug 19. doi:10.7717/peerj.13803.
9. de Greck M, Bölter AF, Lehmann L, et al. Changes in brain activity of somatoform disorder patients during emotional empathy after multimodal psychodynamic psychotherapy. *Front Hum Neurosci*. 2013;7:410. Published 2013 Aug 16. doi:10.3389/fnhum.2013.00410.
  10. Substance Abuse and Mental Health Services Administration. Impact of the DSM-IV to DSM-5 Changes on the National Survey on Drug Use and Health [Internet]. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 2016 Jun. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK519704/table/ch3.t31/>.
  11. Liu, J., Gill, N. S., Teodorczuk, A., Li, Z., & Sun, J. The efficacy of cognitive behavioural therapy in somatoform disorders and medically unexplained physical symptoms: A meta-analysis of randomized controlled trials. *Journal of Affective Disorders*. 2018. doi:10.1016/j.jad.2018.10.114.
  12. Das S, Prasad S, Ajay Kumar S, Denise Makonyonga R, Saadoun M, Mergler R. Delusion of Pregnancy: A Case Report and Literature Review. *Clinical Medicine Insights: Case Reports*. 2023;16. doi:10.1177/11795476231161169.

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