

From hysteria to conversion disorder: The profile of the sufferers

Maria Filippidou, Angus Brown, Christos Kouimtsidis

Abstract. *Introduction* The aim of this paper is to draw a profile for the people who present with symptoms of conversion disorder through a review of past papers. **Methodology** Pubmed and PsycInfo were searched using the terms “conversion disorder”, “hysteria” “pseudoseizures”, “dissociative disorders” and “somatoform disorders”. We reviewed the literature published over the last 40 years and examined historical references. **Results** Conversion disorder has been associated with psychiatric comorbidity, significant life events as well as physical illness while cultural aspects of the patients’ life play an important role as well. Patients with conversion disorder also appear to have certain personality characteristics, level of education and socioeconomic background while in some studies association with preceding neuropsychiatric conditions has been found. **Discussion** Patients diagnosed with conversion disorder seem to be mainly females in their early thirties and tend to have characteristics of negativism, somatisation and dissociative tendencies, compulsivity and emotional dysregulation. There is a lot of evidence supporting the idea that neglect, physical, emotional and sexual abuse during childhood seems to be related to a later development of conversion disorder in adulthood. **Conclusion** All the above findings can guide clinicians when it comes to formulating a more robust differential diagnosis for patients presenting with symptoms resembling conversion disorder.

Keywords: conversion disorder, dissociative disorder, hysteria, medically unexplained symptoms, somatic symptoms disorder

**WCPRR December 2014: 132-139. © 2014 WACP
ISSN: 1932-6270**

INTRODUCTION Hysteria is an archaic term used to describe symptoms, which now fall under the term Conversion Disorder. As yet there has been no clear explanation of its aetiology. Hysteria as a term in its own right was dropped from both DSM-IV and ICD-10 (Illis, 2002) and was replaced with conversion disorder. Disagreement regarding the nature of the condition remains and this is evident from the difference between the two classificatory systems but also the different theories that developed over the years about its aetiology. Unconscious drives and the prohibition against their expression (Hollender, 1980) is the basis of the psychoanalytic theory about conversion disorder. According to the learning theory, conversion disorder symptoms would be seen as “maladaptive operant behaviours”, while according to the sociocultural hypothesis, symptoms are a form of expression of a socially forbidden idea (Owens & Dein, 2006). In the DSM-IV, conversion disorder was classified with the somatoform disorders, whereas dissociative symptoms were classified under the dissociative disorders. The ICD-10 classification groups both somatoform and dissociative disorders under neurotic, stress-related, and somatoform disorders (WHO, 1994). The term “somatoform disorders” was reconsidered for the DSM-5, the new edition of the classification system that was published in May 2013. It has been replaced by the term “Somatic Symptom Disorder” (SSD). Previously diagnosed patients with hypochondriasis, pain disorder, somatisation disorder and

Correspondence to: Dr Maria Filippidou, Specialist Registrar in General Adult Psychiatry, Camden & Islington NHS Foundation Trust
Highgate Mental Health Centre, Dartmouth Park Hill, London, N19 5NX

mailto: filippidou_m@yahoo.co.uk

Received April 27, 2014. Accepted via minor revision June 25, 2014.

undifferentiated somatoform disorder will now fall under SSD as the rest of the terms have been removed from DSM-5. In order to make a diagnosis of SSD, the patient must be persistently suffering from symptoms for a period of time (typically at least 6 months). The four symptom groups (with motor symptom or deficit, with sensory symptom or deficit, with seizures or convulsions and with mixed presentation) present in DSM-IV have also been removed. Another important change is that the symptoms can be associated with another medical disorder; they don't have to be "medically unexplained" (APA, 2013). It is also of note that DSM-5 employs a more holistic approach, removing the distinction between mind and body that was implied in DSM-IV.

Criteria for conversion disorder (functional neurological symptom disorder) are modified to emphasize the essential importance of the neurological examination, and in recognition that relevant psychological factors may not be demonstrable at the time of diagnosis.

Conversion disorder is characterized by the presence of deficits that affect the voluntary functions of motor and sensory modes in the absence of evidence for an organic basis. At the same time, the diagnosis excludes symptoms that can be explained by substance abuse, culturally appropriate behaviour or general medical conditions. The presenting symptoms are unintentional and may mimic neurological disorders (Deka *et al*, 2007).

In this paper following a brief historical account we aim to review the literature over the last 4 decades in order to develop an understanding of the predisposing factors leading to an individual developing conversion disorder. Personality features and socio-demographic characteristics are sought in particular as well as psychiatric comorbidity.

On a historical note, "Kahun" Egyptian papyrus, dated 1900 BC, is the oldest document (Illis, 2002) describing symptoms women presented with, that were causing behavioural disturbances. The Greeks later on adopted this belief and the term hysteria is attributed to Hippocrates (*ca.* 460 BC – *ca.* 370 BC) although it is not included in the Hippocratic corpus (APA, 2000). The word Hysteria is derived from the Greek *hystera* meaning "uterus". That shows the simple notion that existed in ancient world regarding the aetiology of the condition demonstrating their explanation. It was believed that the uterus wandered round the body as symptoms were mostly observed in women. A passage from Plato's (428/427 BC – 348/347 BC) *Timaeus* demonstrates the popular explanation of the time:

'The animal within them is desirous of procreating children, and when remaining unfruitful long beyond its proper time, gets discontented and angry, and wandering in every direction through the body, closes up the passages of the breath, and, by obstructing respiration, drives them to extremity, causing all varieties of disease ...'
(Plato, 360 BC [2009]).

Galen (129-216 AD) regarded the cause as being due to blocked menstrual flow and sexual abstinence (Edwards, 2009). These theories were popular for centuries, until the rise of Christian civilization when women who suffered from any physical or mental illness were perceived as being possessed by the devil (Illis, 2002). These beliefs peaked during the late Renaissance (14th-17th Centuries) at a time when witch-hunts were common mainly in southwest Germany (Midelfort, 1972). In the Victorian era the notion of pent up fluids and the stress of modern day living was proposed. A Victorian physician developed a 75-page catalogue of possible symptoms of hysteria and he called the list "incomplete" (Briggs, 2000).

In Europe, Jean-Martin Charcot and Josef Breuer carried out significant work. Charcot (1825-1893) argued that hysteria was caused by hereditary problems in the nervous system and used hypnosis as a method for understanding and treating hysterical illness (Smith, 2009). Joseph Breuer set the basis of his collaborative work with Freud postulating the "cathartic method" while treating Anna O (Cranefield, 1958). Freud and Breuer used "talking therapy" for the first time with this famous case. She was treated by Breuer for severe cough, paralysis of the extremities on the right side of her body, hallucinations, fainting and disturbances of speech, vision and hearing with the observation that her symptoms would cease following their sessions (Freud & Breuer, 1895 [2000]). The importance of the

unconscious was highlighted for the first time and the ideas of primary and secondary gains of hysteria were identified and discussed.

METHODOLOGY *Pubmed* and *PsycInfo* were searched using the terms “conversion disorder”, “hysteria”, “pseudoseizures”, “dissociative disorders” and “somatoform disorders”. We reviewed the literature published over the last 40 years and examined historical references. Titles and abstracts were reviewed regarding their relevance and full texts were obtained where relevant. The search was limited to studies and reviews conducted in English after 1950. This review was not systematic.

RESULTS Thirty-four papers were identified published between 1958 and 2011. Five other book references were consulted. Our results reveal association with psychiatric comorbidity, life events, personality, physical illness and cultural aspects. Literature suggests that there is little research on incidence and prevalence of conversion disorder. It is suggested though that psychiatrists working in specialist services are improving their ability to identify relevant cases (Allin *et al*, 2005). We drew some themes/questions based on what was most commonly discussed in the studies as well as what would have the most clinical relevance today.

a) What is the association of conversion disorder with psychiatric comorbidity?

A common theme that appears frequently in various studies is the concurrent existence of conversion disorder with other psychiatric conditions. In a case-control study (Stone *et al*, 2010) of patients with functional weakness, 79% of cases were female and 21% male. They all had a mean age 39.1 years, 68% were married, with a mean socio-economic deprivation category of 3.7, which was not significantly different from controls. There was no statistically significant difference between cases and controls regarding self-reported anxiety and depressive symptoms but when it came to psychiatric diagnostic interview the incidence of psychiatric comorbidity was significantly higher in cases; 32% met criteria for major depressive disorder, 36% for panic disorder and 27% for somatisation disorder (Stone *et al*, 2010).

In a cross-sectional study (Malik *et al*, 2010) of patients with conversion disorder the majority were young, female, formally educated, rural residents, unmarried, unemployed, having no family history of mental illness and presented through the outpatients department. Using the Hospital Anxiety and Depression Scale, the authors found high rates of depression and anxiety in 61% and 60% of patients with conversion disorder respectively. In another study done in a Turkish psychiatric hospital (Sar *et al*, 2004) out of 68 patients clinically diagnosed with conversion disorder over a period of 12 months, 87% were female and 89.5% had at least one Axis I psychiatric diagnosis at follow-up. Common diagnoses were undifferentiated somatoform disorder (63.2%), generalized anxiety disorder (50%), simple phobia (42.1%), major depression (lifetime) (63.2%), dysthymic disorder (23.7%) and obsessive-compulsive disorder (34.2%). None of the patients with conversion disorder were diagnosed with hypochondriasis, somatoform pain disorder, bipolar affective disorder, psychotic disorder, substance abuse or an eating disorder. However, the authors commented that substance abuse and eating disorders have lower prevalence in Turkey compared to Western Europe and North America general population, while the absence of somatoform and pain disorder and hypochondriasis might have to do with the gender distribution in their study groups. The majority of patients (81.6%) scored above the cut-off point of 35 in the Somatoform Dissociation Questionnaire. This instrument has a sensitivity (0.84) and specificity (0.87) for dissociative disorder diagnosis in a Turkish clinical sample. The instrument was validated for Turkish population. The subjects that fulfilled the criteria for dissociative disorder had current major depression and dysthymic disorder more frequently than the rest of the patients, while half of the conversion subjects had generalized anxiety disorder at follow-up. However, only the result regarding comorbid dysthymia was statistically significant ($p=0.001$). Finally, a history of suicide attempts, self-

mutilation and childhood trauma was obtained from the conversion disorder patients. More than a third of them had one suicide attempt in the past and about the same number had a history of self-mutilation.

In a study by Crimlik and colleagues (1998), 70% of the sample with conversion disorder of motor type was found to have a psychiatric disorder, while 45% had a diagnosis of personality disorder at presentation.

In a study of patients with Psychogenic Non-Epileptic Seizures (PNES) (Marchetti *et al*, 2009), 63.6% had a concurrent diagnosis of mental disorder, mainly depressive disorders. It is important to note that 50% of the individuals diagnosed with PNES also had a definite diagnosis of epilepsy.

A study including 500 psychiatric outpatients conducted by Guze and colleagues (1971) showed that there were significant differences in prevalence between patients with and those without conversion symptoms for comorbid illnesses like secondary affective disorder, antisocial personality and primary affective disorder. The level of education was significantly associated with conversion symptoms but race, gender, and age were not. Apparently this was partly a result of the lower educational achievement of those with hysteria and antisocial personality, however was significant even when these disorders were excluded (Guze *et al*, 1971).

A review article published in 2011 by Durrant and colleagues (2011) looking at the prognosis and outcome predictors in Psychogenic Non epileptic Seizures, identified that patients with PNES have worse prognosis if they have recurrent depression, negativism, somatisation and dissociative tendencies. The most popular way of determining outcome in the reviewed studies was by measuring seizure frequency. Also older patients with coexisting epilepsy and suffering from more dramatic seizures usually have a poorer global outcome (Durrant *et al*, 2011).

Reuber and Elger (2003) studied personality traits in patients with psychogenic nonepileptic seizures. They found out that PNES patients had higher emotional dysregulation scores than the healthy and epileptic control groups, while the PNES patients seemed to have higher scores on dissocial behaviour, "inhibitedness" (probably meaning disinhibition) and compulsivity than healthy controls as well. The authors concluded that this broad dimension of personality pathology reflects the fact that individuals are at greater risk of anxiety and depressive symptoms because of stable personality vulnerabilities (Reuber & Elger, 2003). In another study (Fleischer *et al*, 2002) comparing trauma-related phenomena in subjects with pseudoseizures and subjects with epilepsy, demographics were found to be similar between the two groups. However, there was significant difference in the scores of 5 different trauma-related scales (Impact of Event Scale, Davidson Trauma Scale, Mississippi Scale for Combat-Related PTSD, Dissociative Experience Scale, Pittsburgh Sleep Quality Index) with the pseudoseizure subjects scoring higher. According to a review article by Reuber and colleagues (2004), patients with head injuries, learning disabilities or isolated neuropsychological deficits have increased prevalence of PNES.

The above results highlight that there is significant psychiatric comorbidity in conversion disorder with depression and anxiety being the most common. The risk of suicide and self-mutilation also appears to be higher in this group of patients (Sar *et al*, 2004) while the prognosis appears to be worse for PNES if there is comorbid depression or somatisation (Durrant *et al*, 2011).

b) What is the association of conversion disorder with life events, personality and physical illness?

The association of conversion disorder with life events was observed even before Freud. A precise quantification has always been difficult due to the bias of unreliability of self reports (Aybek *et al*, 2008). However, the importance of this observation reflects one of the basic models of conversion disorder, which hypothesizes that the impact of traumatising life events is being converted into physical manifestations to bypass the emotional pain of dealing with it.

Roelofs and colleagues (2005) conducted a case-control study examining life events that appear to be specifically related to conversion disorder and the relationship between their nature and severity of the condition's symptoms. The authors concluded that there is a positive relationship between severity of

symptoms in conversion disorder and the impact of preceding life events on the patient. Particularly important were life events related to work, relationships and traumatic childhood events. Life events associated with conversion disorder are mostly negative and are usually related to relationships for females and events at work for males. This finding can be linked with the high prevalence of abuse during childhood amongst individuals with conversion disorder as the actual symptoms might simply represent a maladaptive way of coping with significant events throughout life.

In India, Shirali and Bharti (1993) studied 41 cases of hysteria (conversion and dissociation/possession [DP]); 30 female and 11 male and their first-degree relatives. The demographic variables indicated the age of women with conversion hysteria was below 35 years. The individuals were poor, mostly illiterate, married, from a rural background, working, and Hindus. Also most of them had only 1 living parent and the living fathers were found to be authoritarian and closed-minded. The prevalence of life stress was also found to be higher in the female probands when compared to their siblings and male cases. Most of the life events were negative in all cases of hysteria.

Singh and Lee (1997) identified 18 patients fulfilling criteria for conversion disorder (age range: 26-74 years; mean age of onset of first episode: 38 years) through a postal request to general practitioners in a catchment area (population 37,000). There was a female preponderance, with two patients from ethnic minority groups, a temporal correlation with stress in 72% of the cases and a history of sexual abuse in 28% of the cases. They identified three clinical groups: acute onset with good premorbid functioning and full recovery; conversion symptoms as part of polysymptomatic presentation, with fluctuating course; and chronic, severely disturbed individuals with a past history of sexual abuse. There was no case of a missed organic disorder (Singh & Lee, 1997). An Indian adaptation of the Thematic Apperception Test (TAT; Murray & Morgan, 1935) indicates that hysteria cases projected higher needs of gender, affiliation, and aggression than their siblings.

A striking finding was the high incidence of impaired performance on the Halstead-Reitan Neuropsychological Battery in both the Pure and Mixed groups that was found following a study performed by Kalogjera-Sackellares and Sackellares (1999). Given that high incidence of accidents and physical trauma reported by the patients, the authors postulated that head trauma might be responsible for neuropsychological impairment in an appreciable number of the patients in the sample of the study. However, Couprie and colleagues (1995) suggested that the association between conversion disorder and subsequent neurological disease might be out of coincidence, especially if there is a long interval between the two.

Finally, in a prospective control group study (Binzer *et al*, 1997) over a period of 24 months, 30 patients with motor disability due to conversion disorder were compared to 30 controls with motor disability due to neurological problems. Despite the fact that there were issues regarding the inclusion and exclusion criteria used (patients with concomitant neurological disease were excluded from the study), the results were very interesting. They showed that the majority of the subjects with conversion disorder were the only or youngest children in the family (20 out of 30 for the conversion disorder group as opposed to 14 out of 30 for the control group). The mean number of life events three months before symptom onset was also higher than the control group (1.40 in the conversion group and 0.37 among controls (*t* test; $t=5.6$; $P<0.01$) while poor schooling was shown to be a characteristic of the conversion disorder group with an odds ratio (OR) of 9.6. OR of personality disorder was also higher for the subject group as well as Hamilton score for depression. 47% of the patients had been in contact with the psychiatric services in the past, while 17% filled the criteria for histrionic personality disorder. Also, the fact that a high proportion of the conversion group had a near relative with a psychiatric or severe somatic disorder, indicated that it might be the case that the subjects are not coping appropriately and they are asking for support from the surroundings, the authors concluded. The number of life events prior to the disorder was higher in the subject group and they were mostly perceived as negative. The conclusion of the same study that despite the excluding criteria of the study that would omit patients with neurological disease, a third of the conversion patients had significant somatic disease as well, should be taken very seriously. Our approach as clinicians tends to be dismissive of physical illness sometimes as a human reaction to "the boy who cried wolf" situation. It reminds us that one needs to be very careful as a missed diagnosis could have detrimental effects to

patient's prognosis.

c) What are the cultural influences on conversion disorder?

According to Margreet Peutz (1997), an anthropological approach in psychiatric research could sharpen our sensitivity to culture and therefore increase our discipline. That would presumably be towards a more culturally oriented perception of a group of symptoms, according to the individual's background. When it comes to the manifestations of conversion disorder, this approach plays a pivotal role as it is often observed that the symptoms the patient with conversion disorder is presenting with reflect their perception of physical illness.

One cannot ignore the cultural aspects of any form of mental illness. In a large study done in Libya and published by Pu and colleagues (1986) they looked specifically at the socio-demographic features of the individuals presenting with conversion disorder. The mean age of the first attendees in the outpatient clinic was 20.2 years, rather low compared to other studies that usually reveal a mean age of 30 to 40 years (Singh & Lee, 1997; Shirali & Bharti, 1993; Raguram *et al*, 1996). As much as 92% of the sample were literate but only 65% of them could complete the EPI due to difficulties in comprehension. The authors questioned whether the low literacy rate reflected the young age of the subjects. The same would apply to the relatively low percentage of married individuals (15% males and 25% females) with conversion disorder, which contradicted the findings of similar studies in India. An almost equal number of females were either students or housewives. As for the males, the majority of them were soldiers. Commonest type of stresses for males was conflicts at work while for females were conflicts at home.

A similar study done in the US with approximately the same number of subjects, showed a mean age of 41.5 years for conversion disorder while 40% of them were married, followed by a 28% of separated/divorced subjects (Kent *et al*, 1995). That difference reflects the opinion that an alternative explanation of somatisation that supports the influence of cultural differences is that it is a cultural shaping of experience rather than just an inability to express sadness (Raguram *et al*, 1996) mentioned on the possible benefits of indigenous psychotherapy, following a case report of a 38 year old Malay woman whose conversion symptoms improved following a Malay shamanistic healing ceremony. Hsu (1995) observed that conversion disorder was rare amongst Chinese-Americans while the somatoform symptom profile was unique compared to other cultural backgrounds. Also, Mediterranean migrants with acute psychiatric problems predominantly show dramatic somatisation in their symptom patterns, when compared with Belgian patients with similar psychiatric problems and admitted after identical recruiting and referral procedures (van Moffaert & Vereecken, 1989).

DISCUSSION Patients diagnosed with conversion disorder seem to be mainly females in their early thirties although there were some more extreme results in a couple of studies towards both the youngest and oldest tip of the spectrum (20.2 to 41.5 years; Pu *et al*, 1986; Kent *et al*, 1995). Most of these individuals appear to be married from a poor socioeconomic and rural background and have a low level of education. The premorbid personality reveals characteristics of negativism, somatisation and dissociative tendencies, compulsivity and emotional dysregulation, while there is a lot of evidence supporting the idea that neglect, physical, emotional and sexual abuses during childhood seem to be related to a later development of conversion disorder in adulthood. Other characteristics observed in isolated studies, were: being the youngest child in the family, learning disability, being non-white, subordinate males, being of a higher need for sex, affiliation and aggression and having an authoritarian father. Interestingly, conversion disorder was also thought to be a result of a neuropsychiatric condition in more than one studies. This observation mainly concerned head injuries but this finding is still debatable, as further studies towards a neurobiological explanation of conversion disorder need to be done. At present the evidence that is available suggests a broad hypothesis that frontal cortical and limbic activation associated with emotional stress may act via inhibitory basal

ganglia–thalamocortical circuits to produce a deficit of conscious sensory or motor processing (Harvey *et al.*, 2006).

CONCLUSION Further studies need to be done in order to shed light to the aetiology and management of conversion disorder. Perhaps the more popular trend of neurobiological studies will play a pivotal role towards a better understanding of the disorder. However, information from the patient’s history still has a significant role to play in the quality of the patient’s experience, including personality style, “secondary gain”, illness beliefs and childhood experience (Stone *et al.*, 2002). There is a lot of interest around reclassification of the disorder and this is being supported by the consistent finding of psychiatric comorbidity in individuals diagnosed with conversion disorder. These individuals appear to be suffering from concurrent mental disorders, mostly depression and anxiety while there is a clear representation amongst personality disorders as well. As Mario Maj (2005) observed, current operational definitions encourage multiple diagnoses, probably in part because they are less able to convey what the ‘essence’ of each diagnostic entity is. Is this an intrinsic limitation of any operational definition, or a remediable flaw of our current operational definitions? (Maj, 2005). The discussion is still ongoing and there are still a lot to be discovered in order for clinicians to be able to manage the condition with confidence.

REFERENCES

- Allin M, Streeruwitz A, Curtis V. Progress in understanding conversion disorder. *Neuropsychiatric Disease and Treatment*, 1: 205-209, 2005
- American Psychiatric Association (APA). *Diagnostic and Statistical Manual of mental disorder, 4th Edition – Text Revision (DSM-IV TR)*. Washington, DC, APA, 2000
- American Psychiatric Association (APA). *Diagnostic and Statistical Manual of mental disorder, 5th Edition (DSM-5)*. Arlington, VA, American Psychiatric Publishing, 2013
- Aybek S, Kanaan R, David AS. The neuropsychiatry of conversion disorder. *Current Opinion in Psychiatry*, 21: 275-280, 2008
- Binzer M, Andersen PM, Kullgren G. Clinical characteristics of patients with motor disability due to conversion disorder: a prospective control group study. *Journal of Neurology, Neurosurgery and Psychiatry*; 63: 83-88, 1997
- Briggs L. The race of hysteria: "overcivilization" and the "savage" woman in late nineteenth-century obstetrics and gynecology. *American Quarterly*, 52: 246-273, 2000
- Crane PF. Josef Breuer’s evaluation of his contribution to psychoanalysis. *International Journal of Psychoanalysis*, 39: 319-322, 1958
- Crimlisk HL, Bhatia K, Cope H, David A, Marsden CD, Ron MA. Slater revisited: 6 year follow up study of patients with medically unexplained motor symptoms. *British Medical Journal*, 316: 582-586, 1998
- Couprie W, Wijdicks EF, Rooijmans HG, van Gijn J. Outcome in conversion disorder: a follow up study. *Journal of Neurology, Neurosurgery and Psychiatry*, 58: 750-752, 1995
- Deka K, Chaudhury PK, Bora K, Kalita P. A study of clinical correlates and socio-demographic profile in conversion disorder. *Indian Journal of Psychiatry*, 49: 205- 207, 2007
- Durrant J, Rickards H, Cavanna AE. Prognosis and outcome predictors in psychogenic nonepileptic seizures. *Epilepsy Research and Treatment*, Article ID 274736, 7 pages, 2011
- Edwards M. Hysteria. *The Lancet*, 374: 1669, 2009
- Fleisher W, Staley D, Krawetz P, Pillay N, Arnett JL, Maher J. Comparative study of trauma-related phenomena in subjects with pseudoseizures and subjects with epilepsy. *American Journal of Psychiatry*, 159: 660-663, 2002
- Freud S & Breuer J. *Studies on Hysteria*. 1895 [Translated into English by Strachey J. New York, Basic Books, 2000]
- Guze SB, Woodruff RA, Clayton PJ. A study of conversion symptoms in psychiatric outpatients. *American Journal of Psychiatry*, 128: 643-646, 1971

- Harvey SB, Stanton BR, David AS. Conversion disorder: towards a neurobiological understanding. *Neuropsychiatric Disease and Treatment*, 2: 13-20, 2006
- Hollender MH. The case of Anna O: A reformulation. *American Journal of Psychiatry*, 137: 797-800, 1980
- Hsu GLK. Somatoform disorders in Chinese Americans – A pilot study of 24 cases. *Hong Kong Journal of Psychiatry*, 5: 52-57, 1995
- Illis LS. Hysteria. *Spinal Cord*, 40: 311-312, 2002
- Kalogjera-Sackellares D & Sackellares JC. Intellectual and neuropsychological features of patients with psychogenic pseudoseizures. *Psychiatry Research*, 86: 73-84, 1999
- Kent DA, Tomasson K, Coryell W. Course and outcome of conversion and somatization disorders. A four-year follow up. *Psychosomatics*, 36: 138-144, 1995
- Maj M. “Psychiatric Comorbidity”: an artefact of current diagnostic systems? *British Journal of Psychiatry*, 186: 182-184, 2005
- Malik M, Bilal F, Kazmi S, Jabeen F. Depression and anxiety in dissociative (conversion) disorder patients at a tertiary care psychiatric facility. *Rawal Medical Journal*, 35: 224-226, 2010
- Marchetti RL, Kurcgant D, Gallucci Neto J, Von Bismark MA, Fiore LA. Evaluating patients with suspected nonepileptic psychogenic seizures. *Journal of Neuropsychiatry and Clinical Neurosciences*, 21: 292-298, 2009
- Midelfort E. *Witch-hunting in Southwestern Germany, 1562-1684: The social and intellectual foundations*. Stanford, Stanford University Press, 1972
- Murray CD & Morgan HA. A Method For Investigating Fantasies: The Thematic Apperception Test. *Archives of Neurology and Psychiatry*, 34: 289-306, 1935
- Owens C & Dein S. Conversion disorder: the modern hysteria. *Advances in Psychiatric Treatment*, 12: 152-157, 2006
- Peutz M. Teaching cultural aspects of psychiatry. *Psychiatric Bulletin*, 21: 160-161, 1997
- Plato. *Timeus*. 360 BC [Translated into English by Jowett B within: Plato. *Timeus and Critias*. US, Digireads.com Publishing, 2009]
- Pu T, Mohamed E, Imam K, el-Roey AM. One hundred cases of hysteria in eastern Libya: a socio-demographic study. *British Journal of Psychiatry*, 148: 606-609, 1986
- Raguram R, Weiss MG, Channabasavanna SM, Devins GM. Stigma, depression and somatisation in South India. *The American Journal of Psychiatry*, 153: 1043-1049, 1996
- Reuber M & Elger CE. Psychogenic nonepileptic seizures: review and update. *Epilepsy & Behaviour*, 4: 205-216, 2003
- Reuber M, Pukrop R, Bauer J, Derfuss R, Elger CE. Multidimensional assessment of personality in patients with psychogenic non-epileptic seizures. *Journal of Neurology, Neurosurgery and Psychiatry*, 75: 743-748, 2004
- Roelofs K, Spinhoven P, Sandijck P, Moene FC, Hoogduin KA. The impact of early trauma and recent life-events on symptom severity in patients with conversion disorder. *The Journal of Mental and Nervous Disease*, 193: 508-514, 2005
- Sar V, Akyüz G, Kundakçi T, Kiziltan E, Dogan O. Childhood trauma, dissociation and psychiatric comorbidity in patients with conversion disorder. *American Journal of Psychiatry*, 161: 2271-2276, 2004
- Shirali KA & Bharti SP. Hysteria in hill women: Life stresses and personality. *Indian Journal of Clinical Psychology*, 20: 93-102, 1993
- Singh SP & Lee AS. Conversion disorders in Nottingham: alive, but not kicking. *Journal of Psychosomatic Research*. 43: 425-430, 1997
- Smith A. *Dora: an analysis of a case of hysteria*. US, Gradesaver LLC, 2009
- Stone J, Zeman A, Sharpe M. Functional weakness and sensory disturbance. *Journal of Neurology, Neurosurgery and Psychiatry*, 73: 241-5, 2002
- Stone J, Warlow C, Sharpe M. The symptom of functional weakness: A controlled study of 107 patients. *Brain*, 133: 1537-1551, 2010
- Van Moffaert M & Vereecken A Somatization of psychiatric illness in Mediterranean migrants in Belgium. *Culture, Medicine & Psychiatry*, 13: 297:313, 1989
- World Health Organization (WHO). *International Statistical Classification of Diseases, 10th Edition (ICD-10)*. Geneva, World Health Organization, 1994