

FROM HYSTERIA TO NOCIPLASTIC PAIN: THE ROOTS OF FUNCTIONAL SOMATIC SYMPTOMS IN ANCIENT MEDICINE

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Abstract: *This narrative literature review examines the historical roots of functional somatic symptoms or somatoform disorders, in particular nociplastic pain. The aim is to show that people in antiquity suffered from similar functional bodily complaints as people today, with significant differences in the socio-cultural framework and the underlying etiology. Whereas in antiquity a purely somatically oriented explanatory model was used as the cause of ailments with the idea of a “wandering womb”, which in retrospect can be interpreted as functional somatic symptoms, today the biopsychosocial model dominates. An analysis of the available English- and German-language secondary literature was carried out. The results show that functional somatic symptoms are a universal component of human experience – both in intercultural comparison and across different eras.*

Keywords: *nociplastic pain; functional somatic syndromes; somatoform disorders; hysteria; antiquity*

INTRODUCTION

Nociplastic pain refers to chronic pain without organ pathology. Traditionally, such pain phenomena are also called functional or somatoform pain disorders (Fitzcharles et al. 2021). In addition to chronic back pain and headaches, this also includes more complex complaints such as irritable bowel syndrome (IBS). Nociplastic pain is a prominent example of functional somatic symptoms or somatoform disorders that cause real suffering and impairment and are caused by biological, psychological and social factors (Roenneberg et al. 2019).

Depending on the study, between 20 % and 40 % of the adult population worldwide are affected by chronic pain syndromes (Breivik et al. 2006; Dahlhamer et al. 2018). The associated direct costs, for example through frequent visits to the doctor and medication prescriptions, as well as indirect costs, such as lost working hours and reduced productivity, add up to billions each year (Barham 2012).

The category of somatoform disorders can be traced back historically to the concept of hysteria (Morschitzky 2007). This now obsolete term served as a collective term for various functional disorders without organic causes (Veith 1965), including physical dysfunctions such as paralysis, cramps or pain, psychological dysfunctions such as depersonalization or derealization, as well as behaviours and personality traits that appear theatrical or exaggerated (Mentzos 2004; Medeiros De Bustos et al. 2014).

This article examines the extent to which hysteria is anchored in the medical and philosophical concepts of antiquity. It examines whether and to what extent the clinical pictures and explanatory approaches presented in ancient writings can be

interpreted as precursors of today's somatoform disorders. In addition, differences and parallels to modern conceptions of functional somatic symptoms and nociplastic pain will be identified.

RESEARCH METHODOLOGY

For this narrative literature review, a review of the available secondary literature was carried out. Both English and German-language publications were considered. The focus was on works that deal critically with the phenomenon of hysteria. The identified sources were selected on the basis of their scientific relevance, topicality and methodological quality. This was followed by an in-depth analysis of the selected texts, in which key terms, diagnostic approaches and treatment methods were identified.

RESULTS

Ancient Greece

Ancient Greek medicine attributed many psychological and physical symptoms in women to the uterus as a freely moving organ and its unwanted movement in the body (Veith 1965). The disorders are described in the *Corpus Hippocraticum*, a collection of medical writings from ancient Greece attributed to the physician Hippocrates of Kos (ca. 460 – 370 BC) (King 2018).

The term hysteria is derived from the ancient Greek *hystéra*, which means “womb”. However, the clinical picture of hysteria was unknown to the doctors of antiquity. The adjective *hysterikós* is occasionally used in the sense of “coming from the uterus” (Föllinger 1996). In this respect, in Greco-Roman antiquity, “hysterical” phenomena were exclusively understood as illnesses triggered by the uterus. *Hysteria* was not used as a noun until the end of the 18th century and was introduced as a medical category in 1818 (Arnaud 2015). Nevertheless, the *Corpus Hippocraticum* describes conditions that can be retrospectively interpreted at least in part as “hysterical” phenomena and would nowadays be classified as dissociative or somatoform disorders – for example, suffocation similar to the globus sensation or suffocation during a severe anxiety attack, numbness, cramps, paralysis, hearing and vision loss or trance-like states of consciousness. Pain is also described, which in principle can affect any part of the body (Föllinger 1996).

The organic cause was assumed to be that the uterus dries out due to a lack of sexual intercourse and the resulting lack of moisturizing sperm, excessive physical exertion or inadequate nutrition, making it lighter, leaving its place in the abdomen and wandering through the body in search of moisture. Due to the unnatural position of the uterus, the menstrual blood can no longer drain properly, which ultimately triggers the “hysterical” symptoms. Depending on which organ the uterus has migrated to, such as the lungs, the heart or even the head, it causes different symptoms (Veith 1965; King 2007). For example, the uterus can trigger sciatic neuralgia if it hits the legs or feet (Diepgen 1937; Veith 1965).

The philosopher Plato (427 – 347 BC) compared the uterus to an irrational an-

imal that hungrily craves children. If it remained unsatisfied for a long time, it would wander around the body, blocking the air passages and causing severe symptoms of illness (Kaech 1950; Schaps 1983; Faraone 2011).

The idea of a sexual aetiology of “hysterical” phenomena is new in ancient Greek medicine (Schaps 1983). In addition to sexual intercourse to moisten the uterus, pregnancy was recommended as a treatment, as the menstrual blood could drain better after childbirth (Föllinger 1996). Aromatic and phytotherapeutic vaporizations were recommended to lure the uterus back into its natural position. Abdominal bandages were used to fix the uterus in the lower abdomen (Schaps 1983; Föllinger 1996).

Roman antiquity

The Greek anatomist and surgeon Herophilos of Chalcedon (325 – 255 BC) was the first to identify the ligaments by which the uterus is anchored in the pelvic cavity (Wiltse and Pait 1998; King 2022). Soranus of Ephesus and Galen of Pergamon (129 – ca. 199 AD) therefore rejected the theory of the wandering uterus as the cause of “hysterical” phenomena, but maintained the uterine genesis of these disorders (Schaps 1983; King 2022).

Soranus of Ephesus was considered the most important gynecologist of late antiquity and practiced in Rome around 100 AD. He described a disorder called *hysterikē pnix*, which can either be translated as “suffocation triggered by the uterus” when describing the feeling of suffocation of the woman during a “hysterical” attack, or as “suffocation of the uterus” when referring to a suspected suffocation of the organ itself (Mattern 2015). Other symptoms were associated with this disorder, such as fainting, aphonia, convulsive seizures, tinnitus, gastrointestinal problems, dizziness, headaches and tension (Mattern 2015; King 2022). Soranus saw the cause of “hysterical” phenomena in the inflammation of the ligaments of the uterus (King 2022) and as a result of frequent miscarriages and premature births and delays in menstruation (Diepgen 1937; Schaps 1983). As he rejected the theory of the “wandering womb”, he rejected all treatments such as vaporization or sexual intercourse. He attributed the success of aromatherapy to the ability of certain aromas to relax or constrict muscles. He himself recommended relaxation procedures using massages with olive oil and subsequent bloodletting (King 2022).

Galen developed his own theory on the aetiology of *hysterikē pnix*, which he called *apnoia hysterikē*, i.e. “respiratory arrest caused by the uterus” (Mattern 2015; King 2022). Instead of a wandering womb or inflammation of the ligaments, he assumed that the retention of the female semen in the uterus led to a cooling and poisoning of the female body (Mayr 1989). Severe symptoms can result, such as loss of breathing, pulse and consciousness as well as disturbances of “reason” (Diepgen 1937; Schaps 1983; King 2022). Particularly severe cases can also lead to death (Mattern 2015).

Sexual abstinence is also Galen’s central etiopathogenetic risk factor for “hysterical” phenomena. Women who have not yet had sexual intercourse are particularly affected, as are widows, infertile women and women with amenorrhea. Women

also have to reckon with more serious health consequences than men. “Hysterical” disorders can therefore be interpreted as somatic manifestations caused by the suppression of essential physiological needs. Like micturition and defecation, the discharge of semen is a natural, elementary bodily function in both men and women (Diepgen 1937). In therapy, this function must be restored. Galen therefore recommended regular sexual activity. He also retained aromatherapy, although the medical rationale has changed: Rubbing the genitals with aromatherapeutic preparations leads to orgasm, allowing retained semen to be expelled (King 2022). Galen was possibly one of the first to recognize that sexually abstinent men can exhibit similar “hysterical” symptoms to women (Veith 1965; Kloë and Kindt 1981). He also emphasized the heterogeneity of “hysterical” phenomena: “hysterical passion is just one name; variable and innumerable, however, are the forms which it encompasses” (Veith 1965, p. 39).

DISCUSSION

Ancient physicians did not use the term hysteria. In their opinion, “hysterical” phenomena, including pain in various parts of the body, had organic causes that were located in the uterus and manifested themselves in physical symptoms. Nevertheless, many such physical symptoms can also be interpreted psychologically in retrospect. Even if these disorders initially appear unusual or strange, *hysterikē pnix* could now be classified as a somatoform disorder or Somatic Symptom Disorder according to DSM-5, which is characterized by chronic anxiety and panic attacks (Mattern 2015). The main symptom of *hysterikē pnix*, the feeling of suffocation, indicates anxiety and panic both in the Western medical-psychological context and across cultures. For example, according to DSM-5, the feeling of shortness of breath or breathlessness and feelings of suffocation are diagnostic criteria for panic disorder. However, gastrointestinal complaints, dizziness or the feeling of being close to fainting can also be characteristics of panic disorder according to DSM-5 – symptoms that correspond to those of *hysterikē pnix* (Falkai et al. 2018).

Kirmayer and Young (1998) demonstrated that somatoform disorders are common in all ethnocultural groups and societies studied to date and are the most frequent clinical manifestation of emotional suffering worldwide (Isaac et al. 1996). Whether *hysterikē pnix*, anxiety and panic disorders, nociplastic pain or somatoform disorders: Shorter (1994) was able to prove that the symptomatology of somatoform disorders is also subject to trends in the Western world and that each period with its specific socio-cultural conditions produces its own disorders. In antiquity, for example, attacks of suffocation, breathing difficulties or the feeling of being strangled dominated. In Freud’s time, “hysterical” paralysis symptoms were *in vogue*, which today have been replaced primarily by pain, fatigue and exhaustion syndromes.

CONCLUSION

The present study illustrates that the specific symptom manifestations of “hys-

terical” phenomena and modern functional physical complaints have changed over time, as have their causal attributions. While the explanatory approaches in Greco-Roman antiquity, such as the idea of a “wandering womb”, relied on purely somatic mechanisms, today’s biopsychosocial model emphasizes the complex interaction of biological, psychological and social factors. Nevertheless, suffering from ailments without physical findings remains a universal aspect of human experience, with nociplastic pain in particular being *en vogue* today but occurring in every period of time. Functional somatic symptoms are therefore not a modern phenomenon, but as old as humanity itself.

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ОТ ХИСТЕРИЯТА ДО НОЦИПЛАСТИЧНАТА БОЛКА: КОРЕНИТЕ НА ФУНКЦИОНАЛНИТЕ ТЕЛЕСНИ ОПЛАКВАНИЯ В АНТИЧНАТА МЕДИЦИНА

Резюме: Този наративен литературен обзор изследва историческите корени на функционалните соматични синдроми, респективно соматоформните разстройства, с особен фокус върху ноципластичната болка. Целта е да се покаже, че още в Античността хората са страдали от подобни функционални телесни оплаквания, каквито срещаме и днес, като съществените разлики се крият в социокултурните условия и в основната етиология. Докато в древността с представата за „блуждаеща матка“ се е прилагал чисто соматичен обяснителен модел за произхода на тези оплаквания, които днес можем да интерпретираме като функционални, в наши дни доминира биопсихосоциалният модел. Извършен е анализ на наличната вторична литература на английски и немски език. Резултатите показват, че функционалните телесни оплаквания са универсална част от човешкия опит – както в межкултурен план, така и през различни исторически епохи.

Ключови думи: ноципластична болка; функционални соматични синдроми; соматоформни разстройства; хистерия; Античност

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