

World Journal of *Clinical Cases*

World J Clin Cases 2023 January 16; 11(2): 255-486



REVIEW

- 255 Application of the cortical bone trajectory technique in posterior lumbar fixation
Peng SB, Yuan XC, Lu WZ, Yu KX
- 268 Allogeneic stem cell transplantation in the treatment of acute myeloid leukemia: An overview of obstacles and opportunities
Chen YF, Li J, Xu LL, Găman MA, Zou ZY
- 292 Idiopathic hirsutism: Is it really idiopathic or is it misnomer?
Unluhizarci K, Hacıoglu A, Taheri S, Karaca Z, Kelestimur F

MINIREVIEWS

- 299 Liver function in transgender persons: Challenges in the COVID-19 era
Milionis C, Ilias I, Koukkou E
- 308 Telenutrition for the management of inflammatory bowel disease: Benefits, limits, and future perspectives
Güney Coşkun M, Kolay E, Basaranoglu M
- 316 Liver transplantation amidst the COVID-19 era: Our center's experience
Khazaaleh S, Suarez ZK, Alomari M, Rashid MU, Handa A, Gonzalez AJ, Zervos XB, Kapila N
- 322 Prospects for the use of olfactory mucosa cells in bioprinting for the treatment of spinal cord injuries
Stepanova OV, Fursa GA, Andretsova SS, Shishkina VS, Voronova AD, Chadin AV, Karsuntseva EK, Reshetov IV, Chekhonin VP
- 332 Use of metaphors when treating unexplained medical symptoms
Seeman MV

ORIGINAL ARTICLE**Case Control Study**

- 342 Microvesicles with mitochondrial content are increased in patients with sepsis and associated with inflammatory responses
Zhang HJ, Li JY, Wang C, Zhong GQ

Retrospective Study

- 357 Is fascial closure required for a 12-mm trocar? A comparative study on trocar site hernia with long-term follow up
Krittianitsakun S, Nampoolsuksan C, Tawantanakorn T, Suwatthanarak T, Srisuworanan N, Taweerutchana V, Parakonthon T, Phalanusithepha C, Swangsri J, Akaraviputh T, Methasate A, Chinswangwatanakul V, Trakarnsanga A

- 366 Ten-year multicentric retrospective analysis regarding postoperative complications and impact of comorbidities in hemorrhoidal surgery with literature review

Moldovan C, Rusu E, Cochior D, Toba ME, Mocanu H, Adam R, Rimbu M, Ghenea A, Savulescu F, Godoroja D, Botea F

Observational Study

- 385 Tear inflammation related indexes after cataract surgery in elderly patients with type 2 diabetes mellitus

Lv J, Cao CJ, Li W, Li SL, Zheng J, Yang XL

CASE REPORT

- 394 Management of a rare giant cell tumor of the distal fibula: A case report

Fan QH, Long S, Wu XK, Fang Q

- 401 Repair of a giant inguinoscrotal hernia with herniation of the ileum and sigmoid colon: A case report

Liu SH, Yen CH, Tseng HP, Hu JM, Chang CH, Pu TW

- 408 Anti-leucine-rich glioma inactivated protein 1 encephalitis with sleep disturbance as the first symptom: A case report and review of literature

Kong DL

- 417 Fat-poor renal angiomyolipoma with prominent cystic degeneration: A case report and review of the literature

Lu SQ, Lv W, Liu YJ, Deng H

- 426 Perivascular epithelioid cell tumors of the liver misdiagnosed as hepatocellular carcinoma: Three case reports

Kou YQ, Yang YP, Ye WX, Yuan WN, Du SS, Nie B

- 434 H7N9 avian influenza with first manifestation of occipital neuralgia: A case report

Zhang J

- 441 Gefitinib improves severe bronchorrhea and prolongs the survival of a patient with lung invasive mucinous adenocarcinoma: A case report

Ou GC, Luo W, Zhang WS, Wang SH, Zhao J, Zhao HM, Qiu R

- 449 Habitual khat chewing and oral melanoacanthoma: A case report

Albagieh H, Aloyouny A, Alshagroud R, Alwakeel A, Alkait S, Almufarji F, Almutairi G, Alkhalaf R

- 456 Systemic lupus erythematosus with multicentric reticulohistiocytosis: A case report

Liu PP, Shuai ZW, Lian L, Wang K

- 464 X-linked Charcot-Marie-Tooth disease after SARS-CoV-2 vaccination mimicked stroke-like episodes: A case report

Zhang Q, Wang Y, Bai RT, Lian BR, Zhang Y, Cao LM

- 472 Acute liver injury in a COVID-19 infected woman with mild symptoms: A case report

Lai PH, Ding DC

LETTER TO THE EDITOR

479 Incidence and clinical treatment of hypertriglyceridemic acute pancreatitis: A few issues

Yang QY, Zhao Q, Hu JW

482 Management of infected acute necrotizing pancreatitis

Pavlidis ET, Pavlidis TE

ABOUT COVER

Editorial Board Member of *World Journal of Clinical Cases*, Manish Ramesh Balwani, DNB, FASN, MBBS, MD, Professor, Department of Nephrology, Saraswati Kidney Care Center, Nagpur 442301, Maharashtra, India. balwani.manish@yahoo.com

AIMS AND SCOPE

The primary aim of *World Journal of Clinical Cases* (*WJCC*, *World J Clin Cases*) is to provide scholars and readers from various fields of clinical medicine with a platform to publish high-quality clinical research articles and communicate their research findings online.

WJCC mainly publishes articles reporting research results and findings obtained in the field of clinical medicine and covering a wide range of topics, including case control studies, retrospective cohort studies, retrospective studies, clinical trials studies, observational studies, prospective studies, randomized controlled trials, randomized clinical trials, systematic reviews, meta-analysis, and case reports.

INDEXING/ABSTRACTING

The *WJCC* is now abstracted and indexed in Science Citation Index Expanded (SCIE, also known as SciSearch®), Journal Citation Reports/Science Edition, Current Contents®/Clinical Medicine, PubMed, PubMed Central, Scopus, Reference Citation Analysis, China National Knowledge Infrastructure, China Science and Technology Journal Database, and Superstar Journals Database. The 2022 Edition of Journal Citation Reports® cites the 2021 impact factor (IF) for *WJCC* as 1.534; IF without journal self cites: 1.491; 5-year IF: 1.599; Journal Citation Indicator: 0.28; Ranking: 135 among 172 journals in medicine, general and internal; and Quartile category: Q4. The *WJCC*'s CiteScore for 2021 is 1.2 and Scopus CiteScore rank 2021: General Medicine is 443/826.

RESPONSIBLE EDITORS FOR THIS ISSUE

Production Editor: *Hua-Ge Yu*; Production Department Director: *Xu Guo*; Editorial Office Director: *Jin-Lei Wang*.

NAME OF JOURNAL

World Journal of Clinical Cases

ISSN

ISSN 2307-8960 (online)

LAUNCH DATE

April 16, 2013

FREQUENCY

Thrice Monthly

EDITORS-IN-CHIEF

Bao-Gan Peng, Jerzy Tadeusz Chudek, George Kontogeorgos, Maurizio Serati, Ja Hyeon Ku

EDITORIAL BOARD MEMBERS

<https://www.wjgnet.com/2307-8960/editorialboard.htm>

PUBLICATION DATE

January 16, 2023

COPYRIGHT

© 2023 Baishideng Publishing Group Inc

INSTRUCTIONS TO AUTHORS

<https://www.wjgnet.com/bpg/gerinfo/204>

GUIDELINES FOR ETHICS DOCUMENTS

<https://www.wjgnet.com/bpg/GerInfo/287>

GUIDELINES FOR NON-NATIVE SPEAKERS OF ENGLISH

<https://www.wjgnet.com/bpg/gerinfo/240>

PUBLICATION ETHICS

<https://www.wjgnet.com/bpg/GerInfo/288>

PUBLICATION MISCONDUCT

<https://www.wjgnet.com/bpg/gerinfo/208>

ARTICLE PROCESSING CHARGE

<https://www.wjgnet.com/bpg/gerinfo/242>

STEPS FOR SUBMITTING MANUSCRIPTS

<https://www.wjgnet.com/bpg/GerInfo/239>

ONLINE SUBMISSION

<https://www.f6publishing.com>



Use of metaphors when treating unexplained medical symptoms

Mary V Seeman

Specialty type: Psychiatry

Provenance and peer review:

Invited article; Externally peer reviewed.

Peer-review model: Single blind

Peer-review report's scientific quality classification

Grade A (Excellent): 0

Grade B (Very good): B

Grade C (Good): C

Grade D (Fair): 0

Grade E (Poor): 0

P-Reviewer: Liao JX, China; Reda R, Italy

Received: September 30, 2022

Peer-review started: September 30, 2022

First decision: December 1, 2022

Revised: December 2, 2022

Accepted: January 3, 2023

Article in press: January 3, 2023

Published online: January 16, 2023



Mary V Seeman, Department of Psychiatry, University of Toronto, Toronto M5S 1A1, Ontario, Canada

Corresponding author: Mary V Seeman, DSc, FRCP (C), MDCM, OC, Professor Emerita, Department of Psychiatry, University of Toronto, 27 King's College Circle, Toronto M5S 1A1, Ontario, Canada. mary.seeman@utoronto.ca

Abstract

The words one chooses to describe personal pain mirror current usage, but may also hold echoes of an individual's lived experience. They may provide clues to the origin of physical symptoms that are medically hard to explain. The aim of this commentary is to propose, on the basis of the available literature, that verbal metaphors can prove effective in the psychotherapy of such conditions. I provide a case history of a 45 year old woman referred to psychiatry because of extreme 'burning' pain in her mouth and tongue. She had been to numerous doctors, had undergone a variety of tests, had tried many medical treatments, and had been prescribed a number of different pharmaceutical agents. She had changed her diet, done her daily dental mouth exercises, drunk a lot of water, but the burning continued and interfered, with her job (she was a teacher), her friendships, and her everyday life. This made her angry and recalcitrant to therapy, but the metaphor 'burning with rage,' as applicable to her pain, worked to establish a good alliance that led to a decrease of symptoms. Burning Mouth Syndrome is a medically unexplained condition of complex etiology that psychotherapy alone cannot reverse. The literature bears out, however, that the use of metaphors can help to open avenues of psychological exploration that accelerate adaptation to pain and improve quality life.

Key Words: Alexithymia; Burning mouth syndrome; Idioms of distress; Menopause; Metaphors; Pain

©The Author(s) 2023. Published by Baishideng Publishing Group Inc. All rights reserved.

Core Tip: Burning mouth syndrome (BMS) is a medically unexplained pain condition of complex aetiology. It is particularly prevalent in menopausal and post-menopausal women. Like many complex disorders, BMS has many treatments, but none work well. The use of metaphor in psychotherapy may aid recovery by increasing patients' awareness of connections among mouth sensations, taboo emotions, and potential triggers in their personal and social environment.

Citation: Seeman MV. Use of metaphors when treating unexplained medical symptoms. *World J Clin Cases* 2023; 11(2): 332-341

URL: <https://www.wjgnet.com/2307-8960/full/v11/i2/332.htm>

DOI: <https://dx.doi.org/10.12998/wjcc.v11.i2.332>

INTRODUCTION

Burning mouth syndrome (BMS), also known by many other names (glossodynia, orodynia, oral dysaesthesia, oral cenesthopathy, stomatodynia and stomatopyrosis) is characterized by pain in the mouth cavity, usually, but not always, concentrated on the tongue and roof of the mouth[1,2]. It affects women more than men, and generally begins in the menopausal years. Family physicians and dentists are the first to be consulted. When early attempts at treatment do not succeed, referrals are made to a number of different specialists, each with a partisan perspective on presumed cause and required intervention. The search for effective solutions is difficult because all blood tests results come back normal and no lesions are visible in the mouth. As a general rule, when there are many names for a syndrome, as is the case for BMS, the medical cause remains unexplained, and no one treatment works over the long term (Table 1).

The specialties involved with BMS include otolaryngology, neurology, gastroenterology, rheumatology, dermatology, psychology, and psychiatry[3]. A number of medications have been prescribed, as well as mouth washes, diets, and mouth exercises. Life style changes are often advocated, but most patients are not helped, probably because this condition result from many, perhaps interactive, causes that require close collaborative management.

BMS has been conceptualized as a consequence of aging tissues becoming vulnerable to infection, abrasion, and immune sensitization. Psychiatrists also consider psychological causation such as offense, grievance, slight, and indignity as precipitating factors. The immediate pathophysiology may include stress activation, and hormonal effects on salivary function[4,5], resulting in a dry and sensitive mouth [6] with accompanying disturbances in taste and loss of pleasure in eating[7,8]. Fear that the pain may be a sign of malignancy contributes to the chronicity of pain[9,10].

According to a recent meta-analysis of 18 studies[11], the prevalence of BMS (diagnosed only after all identifiable causes of orofacial pain had been excluded) ranges from 0.7% to 5.1% of the world population, 5.58% in Europe, 1.1% in North America, and 1.05% in Asia. The population age range of studies included in this meta-analysis was 40-85 years, with a case rate of 3.31% over age 50 and 1.92% under age 50. The gender ratio was 7:1 in favor of women[11]. One older study had found that the prevalence of BMS in a study sample recruited from a menopause clinic reached 26%[12]. Disorders such as BMS have been called 'mystery illnesses'[13], or syndromes of unexplained cause.

LITERATURE SEARCH

The idea for this paper originated in a chance meeting with a former patient whom I had last seen 25 years earlier. We met on the street and she made a point of stopping me and telling me that our meetings a quarter of a century ago had changed her life for the better. I was taken aback because I remembered our therapeutic sessions as difficult. She had presented with a diagnosis of BMS and her pain was still there when we terminated therapy. This led to a PubMed search for BMS AND Menopause AND Metaphor because the patient had been premenopausal at the time of our meetings and because I had used metaphors for 'burning' and for 'mouth' in an attempt to encourage her to talk about her life. I limited my search to papers published since 2000 except for references to the history of BMS itself and to the history of its psychological treatments. Because of the wealth of articles on various aspects of BMS, I leaned, for the most part, on general recent reviews. This is, therefore, a commentary. The opinions expressed are mine.

Table 1 Burning Mouth Syndrome

Symptoms	Visible signs	Etiology
Sore gums	None	Dental disease
Burning tongue	None	Infection; Allergy
Dry mouth	None	Dehydration
Altered taste	None	Gastric or dietary problems
Distress	Agitation; Social isolation	Psychiatric problems

CASE STUDY

A 45 year old teacher was referred to me for consultation on the initial assumption that her primary symptom, burning pain in her mouth and tongue, was a somatic delusion. On assessment, the patient was found to be self-aware, non-delusional, in considerable distress, and seeking psychotherapy for a pain that she thought must be psychologically-based since all potential immune and infective causes had been ruled out. Psychotherapy was made difficult, however, by the patient's anger directed at me because I represented the medical profession that had repeatedly failed to help with her distressing symptom. She had been frustrated at every turn in her search for answers to her pain. The patients had been given the diagnosis of Burning Mouth Syndrome, a form of somatic delusion, but I saw her as an angry woman. It was for this reason that I asked, during our first session, whether she was, perhaps, burning with rage. The patient did acknowledge being angry but did not see any connection between her anger and her pain. She did go on, however, to speak at length about the anger she felt at work. One of her colleagues had been promoted while she, who had worked at the school longer, had not. She then went on to tell me that this same colleague was currently away on a study sabbatical (which was a perk tied to her promotion) but was in actuality cheating on her husband, spending time with a lover behind her husband's back.

This conversation led, in subsequent sessions, to talking about the patient's own unpartnered and socially isolated state. I asked whether the "burnt out" metaphor applied to her, suggesting that, in comparison to her colleague's busy life, she might see her own life as lying "in ashes" *i.e.* dormant. This seemed to strike a chord. She talked about her lack of friends, her lack of family ties, and her current age making motherhood impossible. The motherhood theme turned out to be an important one. She was an only child and had always felt ill equipped to be a mother; she had had other ambitions. But now that motherhood was no longer a possibility, she deeply regretted many of her past decisions. In our sessions, she had become less angry and was talking more freely. Because she often mentioned male colleagues when talking about her work, I suggested that another common expression related to burning was "burning with lust." At this suggestion, she again became angry, saying that she didn't appreciate questions that were so personal. Shortly afterwards, she stopped therapy, claiming that her pain was better and she "didn't need me anymore." I always viewed this as a failed therapy until, 25 years later, we accidentally passed each other on the street. I did not recognize her. But she called out to me and stopped to talk. She said she was extremely grateful to me and that I had helped her immeasurably. She seemed sincere. Because our conversation was brief, I could not ascertain in what specific way she felt that our visits had been helpful. I did not think to ask permission to write about our therapy. Because of this, several potentially identifiable aspects of the case have been changed to protect the patient's identity.

RAGE AND MENOPAUSE

Hostility and anger were much in evidence in this patient. Ozcan *et al*[14], in a recent paper, discuss the prevalence of anger related to menopause and the significant losses (the loss of fertility, the loss of youth, vigor, health, the empty nest, the loss of opportunity, the death of parents) associated with this time of life. A previous psychotherapeutic case history of BMS[15] illustrates how addressing unexpressed rage led to a successful therapy outcome. There is little doubt in the literature that psychogenic components in general contribute to the interpretation of pain, and, thus, to its felt intensity. This probably starts in early life experiences that shape personality, pain tolerance, and cognitive styles, and that may lead to changes in somatic attributions and pain thresholds at later ages. Relevant to BMS in women, inflammatory markers increase at menopause[16,17]. This provides a model by which stress determinants can act over extended periods of time and eventually trigger symptoms at a time of hormonal change.

Anxiety and depression and BMS

Onset of BMS symptoms is often reported as occurring in the context of depression or anxiety disorder. Kim *et al*[18] conducted a population-based study using the Korean National Health Insurance Service National Sample Cohort database. Their aim was to determine the prevalence of psychopathology in patients with a clinical diagnosis of BMS and compare it with that of a matched group from the general population. What they found was an excessive rate of anxiety and depression associated with BMS. Because patients with a history of psychopathology prior to BMS had been excluded from this study, their conclusion was that anxiety and depression did not cause BMS but, rather, resulted from BMS. Their findings, however, could indicate that a vulnerability to anxiety and depression, previously unexpressed, had been triggered by the distress associated with the symptoms of BMS[19] or by hormonal changes not addressed in the study.

PERSONALITY FEATURES AND BMS

Another avenue of psychological investigation in BMS has been personality. Specific personality traits have been associated with BMS[20,21], two of which stand out: (1) A discomfort with novel experiences; and (2) a tendency to use avoidance as a mechanism of defense against anxiety. Researchers pursuing this route of investigation are persuaded that personality features are as important to the course and outcome of BMS as are the physiological processes (neurogenic, immune, endocrine) usually highlighted in the BMS literature.

Physical distress, especially the experience of pain, may theoretically result from a deficit in the cognitive processing of emotions and the inability to express one's feelings in words, such that the emotion is, instead, expressed somatically[22]. This can be a feature of personality and is referred to as alexithymia. It is usually assessed by scores on the 20-item Toronto Alexithymia Scale (TAS-20)[23,24]. High alexithymia scores are associated with chronic pain, negative affect, and low perceived quality of life[25]. Alexithymia scores have been reported as significantly higher in BMS patients than in matched controls recruited from the general population[26,27].

WORDS USED TO EXPRESS PAIN

In an attempt to treat each pain patient not as a case but as an individual[28], and to find the most appropriate and effective treatment for each, researchers have taken an interest in the specific words that patients use to describe their personal pain. Melzack and Torgerson[29] and Melzack[30] systematically compiled a list of adjectives that describe pain states and used them to construct the currently most widely utilized pain screen, the McGill Pain Questionnaire.

Kirmayer *et al*[31] proposed that somatic symptoms often represent, through the symbolism of word associations and metaphors available within a specific culture, culture-specific idioms of distress. This possibility links the specificity of words used to describe physical distress with the psychological and social history and circumstances of individual patients. An earlier paper[32] had suggested that the sensation, expression and etiology of a set of symptoms are all components of a semantic network, with every pain-evoking condition eliciting descriptive words from that network. The network is formed by connections established over a life time between somatic sites of pain and emotionally meaningful relationships or between pain and perceived decline in social status.

HISTORY OF CONCEPTUALIZATIONS OF BMS

The developmental history of concepts relating to BMS is pertinent here[33]. Although first descriptions of a syndrome of mouth pain begin to emerge in the European medical literature at the beginning of the 19th century, it is not until 1870[34] that the pain is characterized as "burning". In North America, it is not until 1920 that there is a first reference to a "burning tongue"[35]. In that paper, the distress caused by a burning tongue was attributed to a fear or phobia of tongue cancer[35]. The first references to the current favourite, "burning mouth syndrome," start appearing in the English language dental literature in 1967[36,37]. Since then, over a thousand entries are listed under BMS in Google Scholar.

References to 'Burning' in English

Although common expressions and metaphors for pain differ in different languages and cultures[38-40], the concept of burning pain brings with it its own specific imagery in English. One image is of the flame of erotic passion as in "Burnin for you," a rock band song that was a #1 hit song in the United States in the early 1980s. The same idea is captured in informal American speech, -e.g. "having the hots for someone." Because BMS is associated with postmenopausal women, psychotherapists may not expect metaphors of lust to be pertinent to this age group. Sexual desire is widely considered to abate at

this time in a woman's life[41]. However, for many women after menopause, freed from the fear of unwanted pregnancy, interest in sexual activity increases, often directed outside of legitimate channels [42-44]. Older age does not eliminate lust, as well expressed by one resident in an assisted living facility when asked how she felt about this topic: "Snow on the mountain, fire in the furnace—just because I'm old don't mean the other parts of me aren't hot"[45].

BURNOUT AND MENOPAUSE

The concept of "burnout," indicating a state of exhaustion, mental fog, loss of *joie de vivre* caused by excessive and prolonged work stress[46], has been associated with menopause[47,48]. Of all the symptoms experienced by women when they reach menopause, fatigue is one of the most common and is reportedly the one most subjectively distressing[48]. Physical pain may be part of the picture[49]. The burnt out feeling, the belief that there's no further joy to expect in life, nothing to look forward to, constitutes a major emotional burden. In an article about women with functional voice disorder or dysphonia, Baker *et al*[50] comment that the women had not only lost the use of their voice, literally, but were feeling burnt out because their figurative 'voice' was not being heard.

MOUTH AND FLAMES

Mouths and tongues lend themselves to metaphors because they serve a multitude of functions. They are used not only to speak but also to eat, to make love, to whisper, to challenge, to sing, to yawn, to wail, and to yell, which leads to many possible connections to malaise and distress[51]. Biblical proverb 16:27, links mouths with flames - "A worthless man plots evil, and his speech is like a scorching fire[52]" Since the time of Homer, teeth and tongue and lips have been symbolically viewed as fences or barriers that prevent rash thoughts from being voiced. They form a virtual barricade against airborne poisons, not only infective agents and poisonous gases, but also toxins such as insults, humiliations, and slanders[53].

Idiomatic speech in English links the tongue to the infliction of pain (e.g. 'tongue lashing,' 'chewing out,' 'giving someone the rough side of one's tongue')[54]. Disgust and deceit are further negative oral associations ("leave a bad taste in the mouth," "forked tongue," "doing lip service to")[55]. This may help to explain how the mouth becomes a fertile site for psychosomatic pain.

Please see [Figure 1](#) for fire and heat metaphors that could psychologically underpin BMS symptoms.

PATIENT-THERAPIST COMMUNICATION

Assuming an association among experience, symbolization, and somatic symptoms can lead to symptom improvement, perhaps through new confidence that symptoms have personal meaning and the unknown is less to be feared. Confidence in understanding the multidetermined sources of a symptom depends to a large extent on the communication between patient and therapist. Current recommendations re therapy with BMS patients are: total transparency with BMS patients, admission that the condition is poorly understood, acknowledgement that both cause and optimal treatment are uncertain, but also explanation that psychological factors play a role. The patient should not be led to expect immediate cure[56]. While symptom amelioration is hoped for, the goal of therapy is a deepening of the understanding of the mind-body connection.

What is generally agreed as fundamental to effective therapy of BMS is that the clinician listen carefully to what the patient says[57]. The introduction of metaphors into the conversation has been found useful for starting therapeutic dialogues and opening channels of communication that can lead to healing. Gallagher *et al*[58] conducted a randomized-controlled trial investigating the impact of metaphors on the reconceptualization of pain. They found that pain biology was better understood when study participants were given a booklet of metaphors to read (73%) in comparison to participants who, instead, were given an educational booklet on cognitive-behavioral principles (43%). Reading about metaphors also decreased pain catastrophizing in this study, but there was no positive impact on pain or disability. A more recent study found that a mutual appreciation of pain metaphors enhances communication between pain patients and their doctors[59]. Metaphors engage patients in discussion about psychological discomforts, which then leads naturally to conversation about relationships, hopes, disappointments, and regrets. With time, patients share stories of the stresses in their lives. According to Sapolsky[60], real (literal) and symbolic (metaphorical) versions of a concept are processed in the same exact brain regions. When doctors use metaphors, it allows patients to reframe their distress in new ways[61]. Clinicians can be the ones who introduce new metaphors, but commentators agree that the most fruitful metaphors are those generated by the patients themselves[62]. Shinebourne and Smith[63] suggest that patient-generated metaphors offer a 'safe bridge' through which patients express emotions

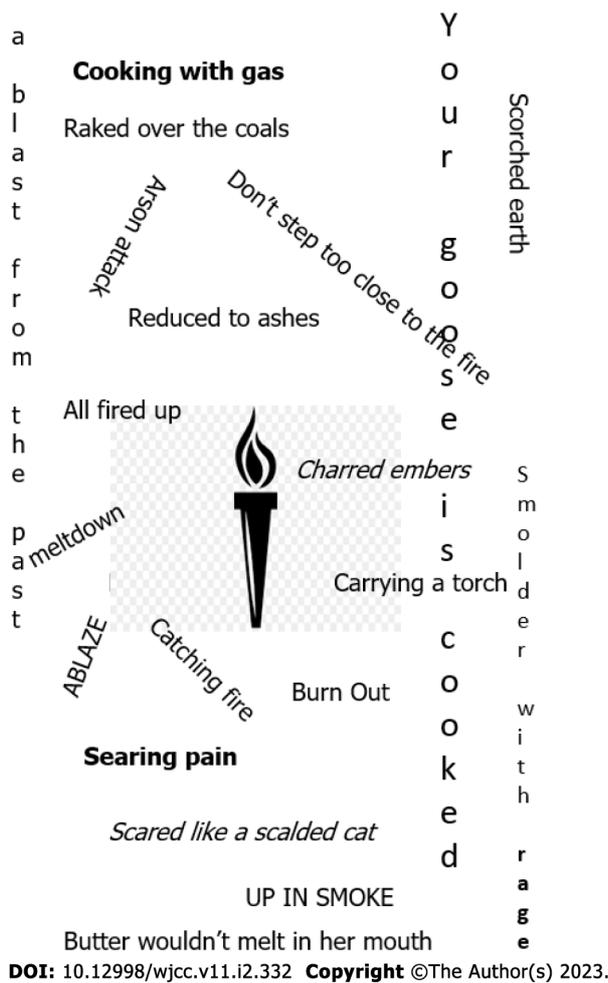


Figure 1 Burning mouth.

that are too hard to put into straightforward words.

Adjectives, such as ‘burning’ that patients use to describe their pain, allow therapists to elaborate richly-linked metaphors. The therapist can suggest, for instance, that feeling wronged by disloyal husbands, unappreciative employers, successful rivals, or feeling mad at oneself for wrong turns taken, or simply feeling hurt by the general unfairness of life, can make one ‘burn with rage.’ Recognizing and expressing anger safely has long been considered helpful for sufferers of chronic pain[64]. Increasing awareness of connections between the sensations in one’s mouth, one’s taboo emotions, and the stresses and potential triggering factors in one’s personal and wider environment is a start on the path that leads to accommodating oneself to pain[18,65,66]. Symptoms are unlikely to be fully eliminated, but they become easier to set to the side.

DISCUSSION

Various interventions to alleviate symptoms and improve quality of life in BMS are continuously being tried. This includes pharmacological treatment, transcranial magnetic stimulation, cognitive behavioral and psychoanalytically-informed psychotherapy[67,68], but rarely has any one treatment reliably resulted in remission. Reportedly only 3% of patients lose their symptoms altogether[69,70].

This review recommends psychotherapy that builds on the words with which BMS patients describe their pain. This allows collaborative exploration, with the patient, of all the potential symbolic meanings of the words that best express the nature of the pain. Burning has many connotations, but some patients may use adjectives other than burning to describe oral pain. They may use words such as ‘tingling’ (suggesting excitement) or ‘dryness’ (suggesting lovelessness) or ‘numbness’ (suggesting repeated hurt). Many patients who suffer from BMS have been described as alexithymic, in other words, as having chronic difficulty recognizing or talking about emotions. Because of this, images instead of words have been used to good effect[71]. Introducing metaphors constitutes another potentially useful avenue that can result in meaningful communication[72].

Table 2 Putting metaphors to use

Patient descriptions of unexplained oral pain	Potential English metaphor
Burning	It burns me up: Makes me extremely angry
Gripping	To lose one's grip: To lose control over one's world
Throbbing	Heart throb: Someone you find extremely attractive
Crawling	Crawl out of the woodwork: The emergence of something unpleasant
Sore	To get sore at: To get angry with
Raw	To get a raw deal: To be taken advantage of
Shooting	To be gun-shy: To be wary, apprehensive because of past bad experience

The challenge for those treating or witnessing pain is to find a way of crossing the chasm of meaning between themselves and the person living with pain^[73] (Table 2).

CONCLUSION

This paper suggests that the symptoms of burning mouth syndrome hold particular significance for menopausal women and that the use of metaphor in psychotherapy may aid recovery by increasing patients' awareness of connections among mouth sensations, taboo emotions, and potential triggers (or sustaining factors) in their personal and social environment.

FOOTNOTES

Author contributions: I am the sole author.

Conflict-of-interest statement: The author declares no conflict of interest.

Open-Access: This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution NonCommercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <https://creativecommons.org/licenses/by-nc/4.0/>

Country/Territory of origin: Canada

ORCID number: Mary V Seeman 0000-0001-6797-3382.

S-Editor: Liu JH

L-Editor: A

P-Editor: Liu JH

REFERENCES

- 1 **De La Garza Aguiñaga M.** Cruz Fierro N, Quintanilla Rodriguez LE, Lizarraga Rodriguez D, Garcia Jau RA, Nakagoshi Cepeda SE, Martinez Ortiz O, Solis Soto JM. Burning mouth syndrome: An overview and current update. *Int J Applied Dent Sci* 2021; **7**: 252-256 [DOI: [10.22271/oral.2021.v7.i4d.1380](https://doi.org/10.22271/oral.2021.v7.i4d.1380)]
- 2 **Tan HL,** Renton T. Burning mouth syndrome: An update. *Cephalalgia Rep* 2020; **3**: 1-18 [DOI: [10.1177/2515816320970143](https://doi.org/10.1177/2515816320970143)]
- 3 **Boucher Y.** Psycho-Stomatodynia. *J Oral Med Oral Surg* 2019; **25**: 1-7 [DOI: [10.1051/mbeb/2018030](https://doi.org/10.1051/mbeb/2018030)]
- 4 **Abetz LM,** Savage NW. Burning mouth syndrome and psychological disorders. *Aust Dent J* 2009; **54**: 84-93; quiz 173 [PMID: [19473148](https://pubmed.ncbi.nlm.nih.gov/19473148/) DOI: [10.1111/j.1834-7819.2009.01099.x](https://doi.org/10.1111/j.1834-7819.2009.01099.x)]
- 5 **Bulthuis MS,** Jan Jager DH, Brand HS. Relationship among perceived stress, xerostomia, and salivary flow rate in patients visiting a saliva clinic. *Clin Oral Investig* 2018; **22**: 3121-3127 [PMID: [29520470](https://pubmed.ncbi.nlm.nih.gov/29520470/) DOI: [10.1007/s00784-018-2393-2](https://doi.org/10.1007/s00784-018-2393-2)]
- 6 **Pimenta F,** Leal I, Maroco J, Ramos C. Menopausal symptoms: do life events predict severity of symptoms in peri- and post-menopause? *Maturitas* 2012; **72**: 324-331 [PMID: [22607812](https://pubmed.ncbi.nlm.nih.gov/22607812/) DOI: [10.1016/j.maturitas.2012.04.006](https://doi.org/10.1016/j.maturitas.2012.04.006)]
- 7 **Femiano F.** Damage to taste system and oral pain: burning mouth syndrome. *Minerva Stomatol* 2004; **53**: 471-478 [PMID: [15499299](https://pubmed.ncbi.nlm.nih.gov/15499299/)]

- 8 **Su N**, Poon R, Liu C, Dewan C, Darling M, Grushka M. Pain reduction in burning mouth syndrome (BMS) may be associated with selective improvement of taste: a retrospective study. *Oral Surg Oral Med Oral Pathol Oral Radiol* 2020; **129**: 461-467 [PMID: 32147381 DOI: 10.1016/j.oooo.2020.02.001]
- 9 **Arntz A**, Claassens L. The meaning of pain influences its experienced intensity. *Pain* 2004; **109**: 20-25 [PMID: 15082122 DOI: 10.1016/j.pain.2003.12.030]
- 10 **Stilwell P**, Harman, K. An enactive approach to pain: beyond the biopsychosocial model. *Phenomenol Cogn Sci* 2019; **18**: 637-665 [DOI: 10.1007/s11097-019-09624-7]
- 11 **Wu S**, Zhang W, Yan J, Noma N, Young A, Yan Z. Worldwide prevalence estimates of burning mouth syndrome: A systematic review and meta-analysis. *Oral Dis* 2022; **28**: 1431-1440 [PMID: 33818878 DOI: 10.1111/odi.13868]
- 12 **Basker RM**, Sturdee DW, Davenport JC. Patients with burning mouths. A clinical investigation of causative factors, including the climacteric and diabetes. *Br Dent J* 1978; **145**: 9-16 [PMID: 277204 DOI: 10.1038/sj.bdj.4804107]
- 13 **O'Sullivan, S.** The Sleeping Beauties: And Other Stories of Mystery Illness. Pantheon Books, New York, N.Y. 2021. pp. 336. ISBN: 1529010551
- 14 **Ozcan H**, Savci H, Canik M, Ayan M, Bas CF. Comparison of the relationship between menopausal symptoms and loneliness and anger. *Perspect Psychiatr Care* 2022; **58**: 1900-1906 [PMID: 35037249 DOI: 10.1111/ppc.13004]
- 15 **Freeman R.** A psychotherapeutic case illustrating a psychogenic factor in burning mouth syndrome (BMS). *Br J Psychother* 1993; **10**: 220-225 [DOI: 10.1111/j.1752-0118.1993.tb00650.x]
- 16 **Dahiya P**, Kamal R, Kumar M, Niti, Gupta R, Chaudhary K. Burning mouth syndrome and menopause. *Int J Prev Med* 2013; **4**: 15-20 [PMID: 23411996]
- 17 **Shigli KA**, Giri PA. Oral manifestations of menopause. *J Basic Clin Reprod Sci* 2015; **4**: 4-8 [DOI: 10.4103/2278-960X.153514]
- 18 **Kim MJ**, Kho H. Understanding of burning mouth syndrome based on psychological aspects. *Chinese J Dent Res* 2018; **21**: 9-19 [DOI: 10.3290/j.cjdr.a39914]
- 19 **Schiavone V**, Adamo D, Ventrella G, Morlino M, De Notaris EB, Ravel MG, Kusmann F, Piantadosi M, Pollio A, Fortuna G, Mignogna MD. Anxiety, depression, and pain in burning mouth syndrome: first chicken or egg? *Headache* 2012; **52**: 1019-1025 [PMID: 22607629 DOI: 10.1111/j.1526-4610.2012.02171.x]
- 20 **Jedel E**, Elfström ML, Hägglin C. Differences in personality, perceived stress and physical activity in women with burning mouth syndrome compared to controls. *Scand J Pain* 2021; **21**: 183-190 [PMID: 33108343 DOI: 10.1515/sjppain-2020-0110]
- 21 **Orliaguet M**, Misery L. Neuropathic and Psychogenic Components of Burning Mouth Syndrome: A Systematic Review. *Biomolecules* 2021; **11** [PMID: 34439903 DOI: 10.3390/biom11081237]
- 22 **Taylor GJ.** Alexithymia: concept, measurement, and implications for treatment. *Am J Psychiatry* 1984; **141**: 725-732 [PMID: 6375397 DOI: 10.1176/ajp.141.6.725]
- 23 **Bagby RM**, Parker JD, Taylor GJ. The twenty-item Toronto Alexithymia Scale--I. Item selection and cross-validation of the factor structure. *J Psychosom Res* 1994; **38**: 23-32 [PMID: 8126686 DOI: 10.1016/0022-3999(94)90005-1]
- 24 **Bagby RM**, Taylor GJ, Parker JD. The Twenty-item Toronto Alexithymia Scale--II. Convergent, discriminant, and concurrent validity. *J Psychosom Res* 1994; **38**: 33-40 [PMID: 8126688 DOI: 10.1016/0022-3999(94)90006-x]
- 25 **Taylor G**, Bagby RM, Parker JDA. Disorders of Affect Regulation: Alexithymia in Medical and Psychiatric illness. 1997. Cambridge University Press, Cambridge. ISBN 0- 521-77850
- 26 **Shibata M**, Ninomiya T, Jensen MP, Anno K, Yonemoto K, Makino S, Iwaki R, Yamashiro K, Yoshida T, Imada Y, Kubo C, Kiyohara Y, Sudo N, Hosoi M. Alexithymia is associated with greater risk of chronic pain and negative affect and with lower life satisfaction in a general population: the Hisayama Study. *PLoS One* 2014; **9**: e90984 [PMID: 24621785 DOI: 10.1371/journal.pone.0090984]
- 27 **Marino R**, Picci RL, Ferro G, Carezana C, Gandolfo S, Pentenero M. Peculiar alexithymic traits in burning mouth syndrome: case-control study. *Clin Oral Investig* 2015; **19**: 1799-1805 [PMID: 25677240 DOI: 10.1007/s00784-015-1416-5]
- 28 **Seeman MV**, Becker RE. Osler and the way we were taught. *Med Sci Edu* 2017; **27**: 555-557 [DOI: 10.1007/s40670-017-0419-z]
- 29 **Melzack R**, Torgerson WS. On the language of pain. *Anesthesiology* 1971; **34**: 50-59 [PMID: 4924784 DOI: 10.1097/0000542-197101000-00017]
- 30 **Melzack R.** The McGill Pain Questionnaire: major properties and scoring methods. *Pain* 1975; **1**: 277-299 [PMID: 1235985 DOI: 10.1016/0304-3959(75)90044-5]
- 31 **Kirmayer LJ**, Young A. Culture and somatization: clinical, epidemiological, and ethnographic perspectives. *Psychosom Med* 1998; **60**: 420-430 [PMID: 9710287 DOI: 10.1097/00006842-199807000-00006]
- 32 **Pugh JF.** The semantics of pain in Indian culture and medicine. *Cult Med Psychiatry* 1991; **15**: 19-43 [PMID: 2060313 DOI: 10.1007/BF00050826]
- 33 **Périer JM**, Boucher Y. History of burning mouth syndrome (1800-1950): A review. *Oral Dis* 2019; **25**: 425-438 [PMID: 29569416 DOI: 10.1111/odi.12860]
- 34 **Spring AF.** Symptômes de la langue et du goût. In *Symptomatologie ou Traité des Accidents Morbides*, Spring A.F., Ed.; Monceaux: Brussels, Belgium, 1870; Book 4, Vol. 2, Ch. 7, pp.192-194
- 35 **Engman MF.** Burning tongue. *Arch Derm. Syphilol* 1920; **1**: 137-138 [DOI: 10.1001/archderm.1920.02350020020002]
- 36 **Schoenberg B.** Psychogenic aspects of the burning mouth. *N Y State Dent J* 1967; **33**: 467-473 [PMID: 5235393]
- 37 **Silverman SI.** The burning mouth syndrome. Restorative and prosthodontic treatment. *N Y State Dent J* 1967; **33**: 459-466 [PMID: 4864535]
- 38 **Loftus S.** Pain and its metaphors: a dialogical approach. *J Med Humanit* 2011; **32**: 213-230 [PMID: 21484313 DOI: 10.1007/s10912-011-9139-3]
- 39 **Semino E.** metaphor, and embodied simulation. *Metaphor Symbol* 2010; **25**: 205-226 [DOI: 10.1080/10926488.2010.510926]
- 40 **Semino E**, Hardie A, Zakrzewska J. Applying corpus linguistics to a diagnosis for pain. In: *Applying Linguistics in Illness*

and Healthcare Contexts. Demjén Z. (Ed.) Chapter 4. Bloomsbury Academic, London.

- 41 **Athey RA**, Kershaw V, Radley S. Systematic review of sexual function in older women. *Eur J Obstet Gynecol Reprod Biol* 2021; **267**: 198-204 [PMID: 34826667 DOI: 10.1016/j.ejogrb.2021.11.011]
- 42 **Bachmann GA**, Leiblum SR. The impact of hormones on menopausal sexuality: a literature review. *Menopause* 2004; **11**: 120-130 [PMID: 14716193 DOI: 10.1097/01.GME.0000075502.60230.28]
- 43 **Diniz ERS**, Diniz GMD, VTrigueiro EV, de Brito AR, de França DF, Bitencourt MLS, da Rocha ATS, Fernandez SDM, Rolim LLV, Santos APS, Medeiros CBB, da Silva EM, Alves, ABR, Ramos TMB, de Carvalho GCP. Sexual libido of the elderly woman: Myth of asexual old age. *MOJ Gerontol Ger* 2019; **4**: 28-30 [DOI: 10.15406/mojgg.2019.04.00172]
- 44 **Woloski-Wruble AC**, Oliel Y, Leefsma M, Hochner-Celnikier D. Sexual activities, sexual and life satisfaction, and successful aging in women. *J Sex Med* 2010; **7**: 2401-2410 [PMID: 20384946 DOI: 10.1111/j.1743-6109.2010.01747.x]
- 45 **Frankowski AC**, Clark LJ. Sexuality and Intimacy in Assisted Living: Residents' Perspectives and Experiences. *Sex Res Social Policy* 2009; **6**: 25-37 [PMID: 25568640 DOI: 10.1525/srsp.2009.6.4.25]
- 46 **Parker G**, Tavella G. Burnout: a case for its formal inclusion in classification systems. *World Psychiatry* 2022; **21**: 467-468 [PMID: 36073702 DOI: 10.1002/wps.21025]
- 47 **Converso D**, Viotti S, Sottimano I, Loera B, Molinengo G, Guidetti G. The relationship between menopausal symptoms and burnout. A cross-sectional study among nurses. *BMC Womens Health* 2019; **19**: 148 [PMID: 31775724 DOI: 10.1186/s12905-019-0847-6]
- 48 **Taylor-Swanson L**, Wong AE, Pincus D, Butner JE, Hahn-Holbrook J, Koithan M, Wann K, Woods NF. The dynamics of stress and fatigue across menopause: attractors, coupling, and resilience. *Menopause* 2018; **25**: 380-390 [PMID: 29189603 DOI: 10.1097/GME.0000000000001025]
- 49 **Dagnino APA**, Campos MM. Chronic Pain in the Elderly: Mechanisms and Perspectives. *Front Hum Neurosci* 2022; **16**: 736688 [PMID: 35308613 DOI: 10.3389/fnhum.2022.736688]
- 50 **Baker J**, Ben-Tovim D, Butcher A, Esterman A, McLaughlin K. Psychosocial risk factors which may differentiate between women with Functional Voice Disorder, Organic Voice Disorder and a Control group. *Int J Speech Lang Pathol* 2013; **15**: 547-563 [PMID: 23075157 DOI: 10.3109/17549507.2012.721397]
- 51 **Charteris-Black J**. All-consuming passions: Fire metaphors in fiction. *e-Rea* 2017; **15**: 1 [DOI: 10.4000/erea.5992]
- 52 **Brown WP**. The didactic power of metaphor in the aphoristic sayings of Proverbs. *J Study Old Test* 2004; **29**: 133-154, ISSN 0309
- 53 **Griffith RD**. A Homeric metaphor cluster describing teeth, tongue, and words. *Am J Philol* 1995; **116**: 1-5 [PMID: 16411319 DOI: 10.2307/295499]
- 54 **Yu N**. Metaphorical expressions of anger and happiness in English and Chinese. *Metaphor Symbolic Activity* 1995; **10**: 59-92 [DOI: 10.1207/s15327868ms1002_1]
- 55 **Morrow PR**. Tongue and cheek: Some non-tongue-in-cheek remarks on the metaphorical usage and phraseology associated with two body part nouns. *J Nagoya Gakuin U* 2013; **24**: 127-138 [DOI: 10.15012/00000474]
- 56 **Galli F**, Pravettoni G. Burning Mouth Syndrome-Opening the Door to a Psychosomatic Approach in the Era of Patient-Centered Medicine. *JAMA Otolaryngol Head Neck Surg* 2020; **146**: 569-570 [PMID: 32352502 DOI: 10.1001/jamaoto.2020.0524]
- 57 **Hakeberg M**, Hallberg LR, Berggren U. Burning mouth syndrome: experiences from the perspective of female patients. *Eur J Oral Sci* 2003; **111**: 305-311 [PMID: 12887395 DOI: 10.1034/j.1600-0722.2003.00045.x]
- 58 **Gallagher L**, McAuley J, Moseley GL. A randomized-controlled trial of using a book of metaphors to reconceptualize pain and decrease catastrophizing in people with chronic pain. *Clin J Pain* 2013; **29**: 20-25 [PMID: 22688603 DOI: 10.1097/AJP.0b013e3182465cf7]
- 59 **Munday I**, Kneebone I, Rogers K, Newton-John T. The language of pain: is there a relationship between metaphor use and adjustment to chronic pain? *Pain Med* 2022; **23**: 2073-2084 [PMID: 33729513 DOI: 10.1093/pm/pnaa467]
- 60 **Sapolsky R**. This is your brain on metaphors. *New York Times*. 2010, Nov. 14. Available from: <https://archive.nytimes.com/opinionator.blogs.nytimes.com/2010/11/14/this-is-your-brain-on-metaphors/>
- 61 **Stewart M**. The road to reconceptualization. Do metaphors help or hinder the journey? *J Physiother Pain Assoc* 2014; **36**: 24-31. Available from: https://www.researchgate.net/publication/263246201_The_Road_to_Pain_Reconceptualisation_Do_Metaphors_Help_or_Hinder_the_Journey.
- 62 **Hartley T**. Cutting edge metaphors. *Assoc Surgeons Gr Britain Ireland* 2012; **37**: 26-29. Available from: <https://cleanlanguage.co.uk/articles/articles/325/0/Cutting-Edge-Metaphors/Page0.html>.
- 63 **Shinebourne P**, Smith JA. The communicative power of metaphors: an analysis and interpretation of metaphors in accounts of the experience of addiction. *Psychol Psychother* 2010; **83**: 59-73 [PMID: 19712543 DOI: 10.1348/147608309X468077]
- 64 **Graham JE**, Lobel M, Glass P, Lokshina I. Effects of written anger expression in chronic pain patients: making meaning from pain. *J Behav Med* 2008; **31**: 201-212 [PMID: 18320302 DOI: 10.1007/s10865-008-9149-4]
- 65 **Sullivan MD**. Pain in language: From sentience to Sapience. *Pain Forum* 1995; **4**: 3-14 [DOI: 10.1016/S1082-3174(11)80068-1]
- 66 **Wideman TH**, Sullivan MJ. Reducing catastrophic thinking associated with pain. *Pain Manag* 2011; **1**: 249-256 [PMID: 24646391 DOI: 10.2217/pmt.11.14]
- 67 **Jääskeläinen SK**, Woda A. Burning mouth syndrome. *Cephalalgia* 2017; **37**: 627-647 [PMID: 28569120 DOI: 10.1177/0333102417694883]
- 68 **McMillan R**, Forssell H, Buchanan JA, Glennly AM, Weldon JC, Zakrzewska JM. Interventions for treating burning mouth syndrome. *Cochrane Database Syst Rev* 2016; **11**: CD002779 [PMID: 27855478 DOI: 10.1002/14651858.CD002779.pub3]
- 69 **Miyaoka H**, Kamijima K, Katayama Y, Ebihara T, Nagai T. A psychiatric appraisal of "glossodynia". *Psychosomatics* 1996; **37**: 346-348 [PMID: 8701012 DOI: 10.1016/S0033-3182(96)71547-5]
- 70 **Choi JH**, Kim MJ, Kho HS. Oral health-related quality of life and associated factors in patients with burning mouth syndrome. *J Oral Rehabil* 2021; **48**: 150-159 [PMID: 33031643 DOI: 10.1111/joor.13110]

- 71 **Padfield D**, Omand H, Semino E, Williams ACC, Zakrzewska JM. Images as catalysts for meaning-making in medical pain encounters: a multidisciplinary analysis. *Med Humanit* 2018; **44**: 74-81 [PMID: 29895594 DOI: [10.1136/medhum-2017-011415](https://doi.org/10.1136/medhum-2017-011415)]
- 72 **Kohutis EA**. Concreteness, metaphor, and psychosomatic disorders: bridging the gap. *Psychoanal Inquiry* 2010; **30**: 416-429 [DOI: [10.1080/07351690.2010.482393](https://doi.org/10.1080/07351690.2010.482393)]
- 73 **Mehta UM**, Chaturverdi SK. Somatization: Medically unexplained symptoms. Oxford Textbook of Social Psychiatry. Bhugra D, Moussaoui D, Craig TJ. (eds) 2022; Oxford University Press, Oxford, U.K. Chapter 44, ISBN: 9780198861478



Published by **Baishideng Publishing Group Inc**
7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA
Telephone: +1-925-3991568
E-mail: bpgoffice@wjgnet.com
Help Desk: <https://www.f6publishing.com/helpdesk>
<https://www.wjgnet.com>

