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Representation of Visual Metaphor: A Multimodal Discourse Analysis of Fibromyalgia Images

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تمثيل الاستعارة البصرية: تحليل الخطاب متعدد الوسائط لصور الفيبروميالجيا

المستخلص: تهدف هذه الدراسة إلى استكشاف الاستعارة البصرية والخطاب المحيط بالفيبروميالجيا من خلال تحليل متعدد الوسائط للصور المتعلقة بهذه الحالة. الفيبروميالجيا هي اضطراب ألم مزمن يفتقر إلى اختبار تشخيصي واضح، مما يجعل من الصعب نقل تجاربها وتأثيرها على المرضى. يستخدم هذا البحث نهج تحليل الخطاب متعدد الوسائط، حيث يجمع بين التحليل البصري والنصي، لفحص كيفية تصوير الفيبروميالجيا والتواصل بشأنها من خلال الصور البصرية. من خلال تحليل مجموعة متنوعة من الصور، بما في ذلك تلك الموجودة في المواقع الطبية ومنصات وسائل التواصل الاجتماعي ومنتديات المرضى، و تهدف الدراسة إلى كشف الاستعارات الكامنة المضمنة في هذه التمثيلات البصرية. كشفت تحليل الصور عن مجموعة متنوعة من تمثيلات المرض المرتبطة بالفيبروميالجيا. كانت التمثيلات الاستعارية شائعة، وغالبًا ما استخدمت الاستعارات البصرية لتمثيل الألم، والإرهاق، والطبيعة غير المرئية للحالة. ستساهم نتائج هذا البحث في فهم أعمق لكيفية تصوير الفيبروميالجيا بصريًا والتداعيات المحتملة لهذه التمثيلات على الوعي العام، وتجارب الأفراد الذين يعيشون مع هذه الحالة. من خلال تطبيق نموذج للاستعارة التصويرية، تقدم الدراسة منظورًا جديدًا حول كيفية للتواصل بصريًا بشأن الفيبروميالجيا(1996) Forceville

الكلمات المفتاحية: الفيبروميالجيا، الاستعارة، تحليل الخطاب متعدد الوسائط، الاستعارة البصرية، الاستعارة التصويرية.

Representation of Visual Metaphor: A Multi-Modal Discourse Analysis of Fibromyalgia Images

Abstract: The present study aims to explore the visual metaphor and discourse surrounding Fibromyalgia through a multi-modal analysis of images related to the condition. Fibromyalgia is a chronic pain disorder that lacks a clear diagnostic test, making it challenging to convey its experiences and impact on patients. This research employs a multi-modal discourse analysis approach, combining visual and textual analysis, to examine how Fibromyalgia is visually depicted and communicated through visual images. By analyzing a diverse range of images, including those from medical websites, social media platforms, and patient communities, the study aims to uncover the underlying metaphors embedded within these visual representations. The analysis of the images revealed a diverse range of illness representations associated with Fibromyalgia. Metaphorical depictions were commonly found, often using visual metaphors to represent pain, fatigue, and the invisible nature of the condition. The findings of this research will contribute to a deeper understanding of how Fibromyalgia is visually portrayed and the potential implications of these representations on public

awareness, and the experiences of individuals living with the condition. By applying Forceville's model of pictorial metaphor, the study offers a novel perspective on how Fibromyalgia is visually communicated.

Key words: Fibromyalgia, Metaphor, Multi-modal discourse analysis, Visual metaphor, Chronic pain, Pictorial metaphor

1.Introduction

Fibromyalgia has become a widespread syndrome that has encouraged scientists to study and examine this new phenomenon especially after many celebrities worldwide, such as the megastar singer Lady Gaga and Morgan Freeman, have declared that they have this syndrome. Fibromyalgia syndrome (FMS) is a chronic musculoskeletal disorder of unknown etiology that affects up to 5.0% of the world's population. Fibromyalgia syndrome has a high female predominance, range from 80-96% (Ruschak et al, 2023).

Numerous pages and groups have emerged on various social media platforms in order to discuss the challenges associated with Fibromyalgia. Moreover, there are groups dedicated to providing supervision and support to patients who frequently pursue information about the symptoms and causes of this new illness. In the midst of this widespread online network, a multitude of images depicting the illness and reflecting the suffering experienced by patients can be found. These various aspects have captivated the attention of the researcher, provoking an investigation into the visual metaphors conveyed through these images.

1.1 What is Fibromyalgia?

Numerous studies have comprehensively examined the concept that Fibromyalgia is an autoimmune disorder, while other investigations have agreed that it stems from neurological factors. The origin and causative factors of Fibromyalgia have consistently been subjects of debate. Remarkably, a majority of research studies have reached a consensus regarding the symptoms associated with this syndrome. Fibromyalgia, commonly known as fibro, is often referred to by its abbreviated forms as FM or FMS. Fibromyalgia is represented by a purple butterfly as its symbol, illustrating the deep sensitivity experienced by patients suffering from this condition, even to the gentlest physical contact from others. The chosen day for raising awareness about Fibromyalgia falls on the 12th of May,

accompanied by the adoption of a purple ribbon as a symbolic representation of this awareness.

Schreibman (2021) has mentioned that Fibromyalgia (FM) is acknowledged as a central nervous system disorder affecting the processing of pain, leading to heightened sensitivity to pain stimuli. It is hypothesized that changes in the connections between nerves involved in sensory perception cause the activation of nerves responsible for touch, pain, pressure, and even temperature. These alterations subsequently result in the amplification and distortion of sensory input. Recent neuroimaging studies have revealed additional abnormalities in brain connectivity, contributing to a dysfunctional pain inhibition network. FM is characterized by persistent, daily pain, overwhelming fatigue, non-restorative sleep, and difficulties with memory, word retrieval, and concentration. The pain experienced in FM encompasses various types, including myalgia, arthralgia, neuropathic pain, restlessness, and heightened sensitivity to stimuli. (p.1)

1.2 Metaphor

Metaphor serves as a linguistic tool that enables individuals to anticipate something by viewing it through the lens of something else. Cognitive research suggests that metaphor is a fundamental pattern embedded within the human mind. In the last forty years, there has been extensive research conducted on the topic of metaphor within the framework of cognitive linguistics. One noticeable theory in this field is the Conceptual Metaphor Theory (CMT), which was developed by Lakoff and other scholars. Prominent works in this area include Lakoff's publications in 1987 and 2006, as well as the collaborative works of Lakoff and Turner in 1989, Lakoff and Johnson in 1980, Kövecses in 1990, 2000, 2002, 2005, and 2020. The theory emphasizes that metaphor is a prevalent element in both every day and specialized language, and it advocates for understanding metaphor as a conceptual tool rather than exclusively a linguistic device.

The study of visual metaphor is a relatively recent area of investigation, which gained full attention only when conceptual metaphor theory assumed prominence within metaphor studies. Over the past thirty years or more, numerous researchers have endeavored to explore this subject. For instance, Kennedy (1982) conducted a thorough analysis of visual metaphors illustrating that visual metaphors can be created not only through

metaphors themselves, but also by employing other related concepts. Additionally, Kennedy highlighted the fact that hyperbole, metonymy, synecdoche, personification, and other tropes can also be utilized to construct visual metaphors. Although he did not provide pictorial examples for all the tropes mentioned, he did clarify several potential scenarios in which these tropes can be visually depicted.

Visual or pictorial metaphor has emerged as a significant subject of inquiry within the realm of metaphor theory in recent years. Various studies have concentrated on the application of visual metaphor in various specialized domains, including political cartooning (Abdel-Raheem, 2017; El Refaie, 2003, 2009), advertising (Forceville, 1994, 1996, 2008; McQuairre & Philips, 2008; Urios-Aparis, 2009), and music (Zbikowski, 2009). However, the scope of the present study is confined to the utilization of pictorial metaphor in cartoons that depict Fibromyalgia's pain.

Forceville (1996) defined visual metaphors as "the use of one image to represent another, where there is a conceptual similarity between the two" (p. 57). This definition suggested that visual metaphors operate on a cognitive level, allowing viewers to draw connections between seemingly unrelated visual stimuli.

On the other hand, pictorial metaphors can be seen as a subset of visual metaphors, specifically referring to those that are depicted in a pictorial format, such as illustrations, paintings, or photographs. According to Forceville (2006), pictorial metaphors are "metaphors that are realized in images, where the elements of the image correspond to the source and target domains of the metaphor" (p. 194). This distinction implies that while all pictorial metaphors are visual, not all visual metaphors are necessarily pictorial.

Forceville (2009, p.23) postulates the following modes in the investigation of multimodal metaphor:

- pictorial signs
- written signs
- spoken signs
- gestures

- sounds
- music
- smells
- tastes
- touch

1.3 Scope of the study

Using a multi-modal discourse analysis methodology, this study analyzes a collection of images relating to Fibromyalgia to interpret the extent to which these images mirror and articulate the specific pain being targeted in each image, drawing upon the framework established by Forceville (1996).

1.4 Objective of the study

The objectives of the study are given here:

1.The primary objective of this study is to investigate the visual representation of Fibromyalgia through a multi-modal discourse analysis.

2. To show how pain is rendered through visual images.

1.5 Research questions:

1.What are the metaphors used to depict pain in the visual representation of Fibromyalgia?
2. What are the source domain and target domain and mappable features of these metaphors?
3. How is pain visually depicted in the selected images?

2. Literature Review

2.1 Definition of Metaphor

DeRosia (2008) defined metaphor as "a cognitive device which allows us to deal with abstract domains of experience by understanding and experiencing one thing in terms of another" (p. 167).

Metaphor utilizes one item to symbolize another concept, allowing users to grasp complex and unfamiliar concepts (ideas) by illustrating them with simple and familiar objects (Lakoff & Johnson, 1980).

2.2 Definition of pictorial /visual metaphors

They are by definition a tool "for seeing something in terms of something else" (Burke 1969, p. 503). Visual metaphors are a type of rhetorical figure that deviates from expectations in a creative way (McQuarrie & Mick 1996). People have been known to utilize them to help them comprehend an abstract idea by relating to a real one. Metaphors connect two ideas by allowing one to conceptualize the other (Lakoff & Johnson 1980). Forceville (1994) considers visual metaphor to be a "replacement of an expected visual element with an unexpected one." Carroll (1994, p. 209) defined it: "A visual metaphor rests on the shared recognition on the part of the image-makers and the viewers that the disparate elements fused in the homospatial image are being presented as physically non-compossible."

2.3 Mappable features

As philosopher Black has pointed out, metaphors are not limited to conferring properties most commonly associated with a source domain within the community of which the metaphor's maker is a member, but can also involve "novel and nonplatidunious mappings," as the metaphor's maker can elaborate on the nature of the source domain and its relationship to the metaphor's target in the metaphor's maker's community (Black 1962, p.290, 1979, p.442). He posited that metaphors function as a means of understanding and experiencing one domain of experience in terms of another, thus facilitating cognitive connections. Central to Black's theory is the idea of "mappable features," which refers to the specific attributes or characteristics that can be transferred from one conceptual domain (the source) to another (the target). Black's framework suggests that the effectiveness of a metaphor centers on the extent to which these mappable features can be identified and used. This vision has profound implications for understanding how metaphors operate not only in language but also in visual representations, where images can bring to mind similar cognitive mappings.

2.5Theoretical Framework

However, although earlier research has focused on verbal metaphor, an increasing number of contemporary studies have turned their attention to other types of metaphor. Visual (or pictorial) metaphor and multimodal metaphor are the most researched nonverbal metaphors.

Black is considered a forerunner to Lakoff and Johnson (1980). He claimed that metaphor is primarily a conceptual rather than a linguistic issue of thought, and that he provides an influential structure for comprehending a metaphor (Black, 1962, 1979)

Forceville (1996, p. 108) posed three questions based on Black's theory:

1. What are the two terms of the metaphor, and how we do we know?

2. Which of the two terms is the metaphor's primary subject and which is its secondary subject, and how do we know?

3. Which features are projected from the domain of the secondary subject upon the domain of the primary subject, and how do we decide on these features?

When it comes to visual metaphor, Forceville (1996) established three conditions for anything to be characterized as "metaphor". The first step is to identify two domains; the second step is to designate one domain as the target (the metaphor's topic or subject) and the other as the source (the concept used to predicate something about the target), and the third step is to designate one or more source features that can be mapped to the target.

Metaphor, according to Conceptual Metaphor Theory, is no longer a characteristic of language, but rather a style of thinking, a means of seeing one conceptual domain through the lens of another. As a result, metaphors should be sought through means of communication other than words. Forceville (2007) claimed that metaphors may be visually portrayed. He identified four different types of visual metaphors. These are the following:

1. Hybrid metaphor: When a single item or gestalt is portrayed as if it were made up of two separate components, this is known as a hybrid metaphor. These two parts, on the other hand, belong to two distinct domains. As a result, such metaphors are interpreted in the same way that one component is interpreted in terms of the other.

2. Contextual metaphor: according to Forceville, this phenomenon happens when an item or gestalt is interpreted as something else according to the visual context in which it occurs.

3. Pictorial Simile: When two items or gestalts from two distinct categories or domains are juxtaposed, this is referred to as a pictorial simile. The

juxtaposition in such metaphors succeeds in inviting the comprehension of one thing in terms of the other.

4. Integrated metaphor: When an item or gestalt is portrayed in such a manner that it resembles another object, whether or not there are contextual cues, this is referred to as an integrated metaphor.

5. Verbo-pictorial metaphor: When the target and source domains are expressed through different modes such as written and spoken language, gestures, images, and sounds (Forceville, 2007, p. 16).

Pictorial metaphors may be divided into three metaphorical structures, according to Phillips and McQuarrie (2004): juxtaposition (separate presentations of target and source), fusion (target and source are fused), and replacement (target and source are replaced). (The source takes the place of the target.) Both the target and the background are depicted through juxtaposition and fusion source that aids in determining the image's reasoning. However, replacement is not an option. Because there is no perceptual second domain, it is readily recognized as a metaphor. In this situation, the surrounding context is critical in determining the target domain. Thinking at it from the standpoint of the source domain (Forceville, 1994)

To the best of the researcher’s knowledge, there exists a limited number of studies that address the topics of illness or pain visually as an example the study of Forceville and Paling (2018) the study analyzes the use of metaphors to represent depression in nine short, wordless animation films. The authors conclude that two dominant metaphors used in the films are "depression is a dark monster" and "depression is a dark confining space," which are linked based on Lakoff's theory of 'duals.' The study highlights how animation as a medium offers unique affordances for expressing conceptual metaphors and emphasizes the importance of considering visual and multimodal manifestations of metaphors in addition to verbal ones. The analysis of these animations used Conceptual Metaphor.

In a recent study conducted by Gebraad and Forceville (2024), the focus is placed on the utilization of metaphors within medical animation films that address cancer. The research seeks to evaluate whether the metaphors employed in these animations correspond to those identified in verbal texts concerning cancer. Furthermore, it aims to demonstrate how the medium of

animation employs specific techniques to convey metaphors associated with the experience of coping with cancer.

Bennett (2022) explored the role of visual imagery in shaping perceptions of mental health. It critiqued the use of clichéd and stigmatizing images, such as the common depiction of despair, arguing that these reinforce negative stereotypes and did not reflect the complexity of lived experiences. Bennett (2022) discussed several specific visual media examples that effectively promoted mental health literacy such as complain imagery, Conceptual and Expressive Artwork, Virtual Reality (VR) Productions and Social Media Campaigns.

3. Methodology

3.1 Method

The present study employs a qualitative research approach to explore the existed experiences of patients suffering from a specific, lesser-known syndrome, with a particular focus on the depiction of pain through visual imagery shared on social media platforms. The methodological framework is designed to facilitate an in-depth understanding of the experiences of these patients.

3.2 Data Collection

Data for the present study was gathered from a variety of social media platforms, including Facebook, Instagram, Twitter, Pinterest and dedicated support forums. These platforms were selected for their widespread use among patients seeking to connect with others who share similar condition challenges. The rationale for choosing social media as a research data stems from its role as a contemporary venue for patients to express their experiences, seek support, and circulate information regarding their conditions.

The research procedure began with an extensive search for relevant groups, pages, and hashtags associated with Fibromyalgia. The criteria for selecting social media pages should focus on those that address Fibromyalgia, rheumatoid arthritis, or any other autoimmune diseases, with a particular emphasis on discussions related to Fibromyalgia.

Once relevant groups and pages were identified, the researcher took detailed notes on frequent themes, language used to describe pain, and the types of imagery that were shared within these platforms. In addition to the observation of these platforms, a systematic collection of images was conducted. The researcher focused on gathering visual representations of pain, including personal photographs shared by patients, infographics, and artistic depictions created to express the experience of living with the syndrome. However, for ethical considerations the researcher used only visual images that depict Fibromyalgia and didn't use any personal photos. A total of over 60 images were collected, each selected based on its relevance to the central theme of pain and its ability to convey the emotional and physical dimensions of the patients' experiences. The images were organized into categories based on the specific body areas they depicted, as well as the emotional tone conveyed through the imagery.

To facilitate the identification of pain points within the patients' bodies, a descriptive visual aid, referred to as Figure 1, was presented. The visual representation serves to contextualize the qualitative data and provides a clearer understanding of the physical signs of pain associated with Fibromyalgia.

3.3 Data Analysis

Following the categorization of images according to pain trigger points, a second selection process was undertaken to identify the most repeated and well-known images across various platforms. This selection aimed to filter the larger collection into a more manageable sample for analysis, focusing on images that have gained recognition for their powerful depictions of pain. A total of fourteen images were selected to prevent redundancy and to emphasize their significance. By concentrating on these images, the study sought to explore widely recognized representations of pain associated with fibro. The study includes an appendix that details the sources of the images utilized as well as the locations where these images can be accessed.

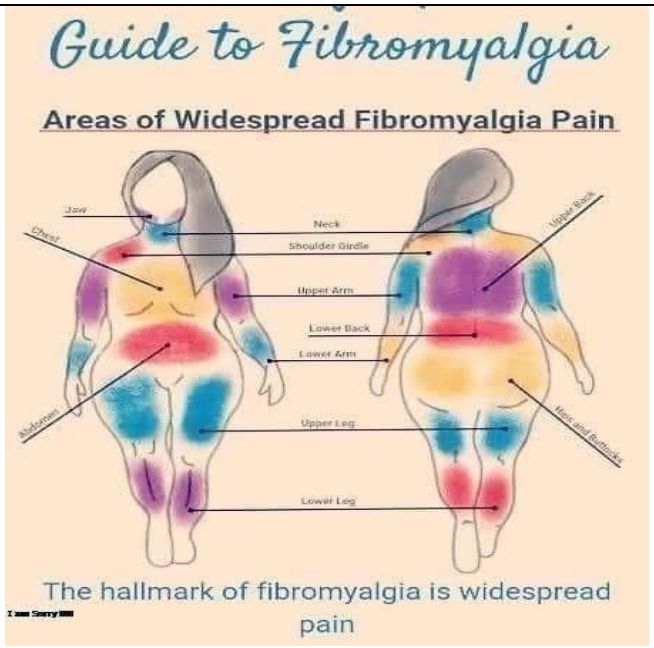
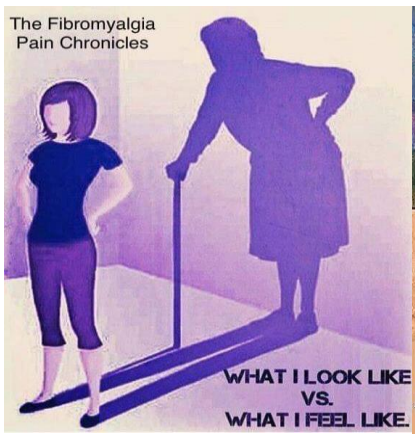


Fig.1

4. Analysis

4.1 Pictorial Simile



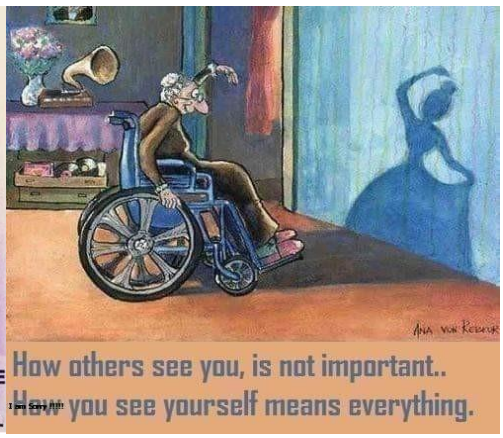


Fig 2 **Fig 3**

Figures 2 and 3 hold significant fame within various social media groups as they summarize the perception of Fibromyalgia patients in relation to their own self-image and how they are perceived by others. In Figure 2, a young girl is portrayed as appearing healthy; however, the underlying reality is that the presence of pain prematurely ages her. The image has been colored with a

purple hue, as it is representative of the colour associated with fibro. The young girl is seen placing her hand on her waist, juxtaposed with the image of an elderly woman using a walking stick and exhibiting signs of back pain. In the lower right corner of the image, a statement is written to indicate that the patients' outward appearance can be misleading, as they may seem healthy despite experiencing internal pain. This visual representation serves to highlight one of the stressful pains associated with Fibromyalgia.

In Figure 2:

Source Domain: Fit Young Girl

Target Domain: The individual's actual experience of living with fibromyalgia, particularly the chronic pain, fatigue, and physical struggles that aren't visible.

Mappable features: The mapping features of this image with the purple hue represent a connection between the visible and invisible pains of Fibromyalgia and how the external appearance of the girl is deceiving**.** The image illustrates the difference between an individual's external appearance, as represented by the phrase "What I look like," and their internal emotional state, encapsulated in the expression "What I feel like."

In Figure 3, the image depicts an elderly woman seated in a wheelchair imaging herself as a ballerina. There is also a purple hue inside the image. The purple hue is evident in Figure 3, where it is observed in the remarks accompanying the image, as well as in the flowers arranged in the vase and the tablecloth. This colour serves as a symbol of fibro. When comparing the two images, it becomes obvious that both depict the patients' self-perception and the way they are perceived by others. However, in Figure 2, the portrayal of the young girl suggests a positive visible appearance, whereas the underlying reality reveals her struggle with back pain. On the other hand, Figure 3 presents an older woman who appears to be suffering, yet ironically shows energy, engaging in dancing and enjoying herself. Nevertheless, the truth lies in the fact that she is confined to a wheelchair due to the persistent pain she withstands. At the bottom of the image, a statement is presented emphasizing the significance of perceiving oneself rather than being influenced by others' perspectives. This psychological factor holds particular importance in the context of Fibromyalgia.

As for the source and target domains of Fig. 3 are as follows:

Source Domain: The elderly woman seated in a wheelchair serves as a real representation of her physical reality, while the shadow of a poised ballerina symbolizes her inner self-image, or former identity.

Target Domain: The internal self-perception and identity of the patient, particularly the way they see themselves beyond physical limitations or external appearances.

Mappable features: The mapping features symbolically with the purple hue links between reality and desires because of the physical limitations and inner dreams. This metaphor highlights the message written in the image: "How others see you is not important. How you see yourself means everything." It emphasizes the idea that self-perception and inner identity are more significant than external appearances or how society might judge fibro patient.

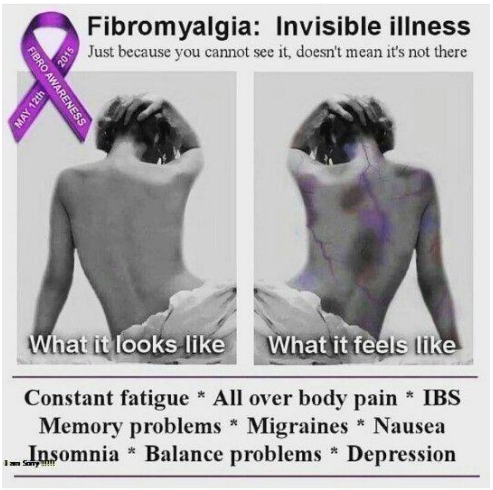


Fig 4

In Figure 4, a pictorial simile is presented to effectively illustrate and juxtapose two images: one depicting a woman's naked back without any signs of pain, and the other portraying a woman experiencing pain in her back and shoulder regions. Positioned at the top of the image, a written statement strongly emphasizes the need to not to be deceived by the absence of visible pain, as the presence of pain may still be present. Furthermore, towards the left side of the image, a fibro purple awareness ribbon is prominently displayed.

Moreover, the left image presents the concept that pain is unnoticeable to the naked eye. However, right image depicts the actual experiences of patients, alongside the inclusion of certain symptoms to increase awareness regarding the syndrome. In the upper left corner of the image rests the purple ribbon symbolizing awareness for Fibromyalgia. Towards the bottom of the page, a concise description is provided, outlining a selection of symptoms associated with Fibromyalgia.

Source domain: Woman's naked back without pain

Target domain: Woman's naked back suffering from pain in her back and shoulder

Mappable features: The mapping features of the present image exemplifies how the contrasting situation between outward appearance is different from the inner suffering and pain of the patient.

4.2 Hybrid Metaphor

Fig 5

Figure 5 represent a hybrid metaphor where two feet are represented as two faces shouting and suffering from the severe pain. Ciaffe et al (2002) have asserted that there is a strong relationship between feet impairment and Fibromyalgia. Among the famous symptoms of foot pain are swelling, irritation, and inflammation of the tissues within the foot and heel. The utilization of a hybrid metaphor in the form of two feet with crying faces presents a persuasive image. This incorporation of visual depictions of physical attributes, namely feet, with emotional expressions portrayed by

crying faces, effectively conveys a profound message concerning pain and difficulty. This image portrays physical and emotional hardships and the burdens of patients while walking.

Source domain: Feet is struggling

Target domain: Struggling both physically and emotionally

Mappable features: the mapping features of this image represents the emotional and psychological suffering.

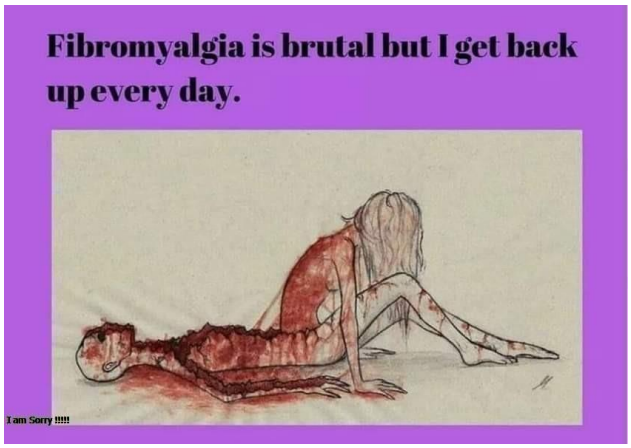


Fig.6

The present image portrays a young female emerging from a lifeless corpse, effectively depicting her persistent immense suffering. Positioned on the top of the image a written statement, emphasizing the brutality of Fibromyalgia and the individual's daily struggle to endure and carry on with life. The purple frame surrounding the image further serves to symbolically convey the omnipresence of Fibromyalgia.

The current image serves to illustrate the muscular stiffness commonly associated with fibromyalgia, highlighting the manner in which patients may experience this stiffness, particularly during the morning hours. Furthermore, the young female depicted in the image appears to be in distress due to the pain she endures, indicating a desire to escape from her unbearable condition.

Source domain: Young female emerging from a dead body

Target domain: The daily challenges faced by people with fibromyalgia, a chronic condition causing widespread pain and fatigue.

Mappable features: The mapping features illustrate the emergence of a young female from a dead state, demonstrating her pain with muscle stiffness and her determined efforts to overcome these challenges and persevere. The caption, "Fibromyalgia is brutal but I get back up every day," conveys resilience and determination despite the struggles.

Fig 7

This is another famous image across the social media platforms to show how the pain is spread throughout the patients' body. The image portrays a youthful woman whose body is full of electric charges, symbolically representing the widespread presence of physical discomfort within her body from head to toe.

Source domain: youthful woman's body

Target domain: widespread pain in the patient's body

The mapping features of Fig7.depctits a youthful woman displaying good health and the symbolic representation of pain as electric charges. This connection serves to emphasize the manner in which pain can have a pervasive and intense impact on the body, often presenting pain as sharp sensations of electricity.

Fig.8

The image represents a young woman caught in a tight network of metal coils, appearing to be confined by their restrictive hold. Dark circles surround her eyes, and her untidy look and poorly expression emphasize her challenging situation. From the image, it is evident that the young woman exhibits dark circles around her eyes, which symbolize exhaustion. Additionally, the metal coil in the image represents Fibromyalgia, where pain embraces the patient's entire body, from head to toe.

Furthermore, the depiction of the girl wrapped in a metat coil can symbolize the imprisonment experienced by Fibromyalgia patients within their own bodies

Source domain: A sick-looking young lady with a tied body

Target domain: Pain and illness

Mappable features: The mapping features help to understand both psychological and physical pain of the patient. Furthermore, these mapping features serve as a representation of the notion that patients are imprisoned within their own bodies.

4.3 Verbo-pictorial Metaphor

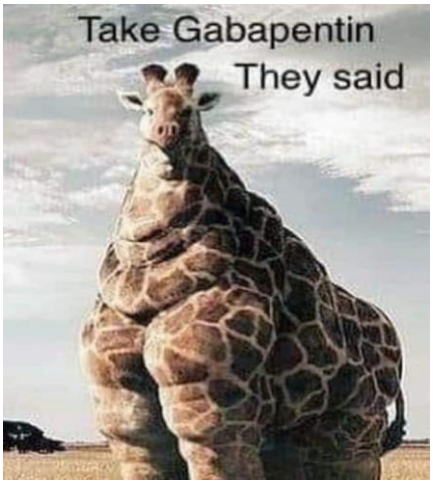


Fig.9

Figure 9 portrays a significantly overweight giraffe, apparently as a consequence of consuming gabapentin pills. Positioned above the image, a written statement reads, "Take Gabapentin they said." This image serves as a humorous representation explaining how even the tallest and thinnest of creatures can experience weight gain due to gabapentin consumption. Gabapentin is a widely recognized pharmaceutical intervention employed in the treatment of patients suffering from Fibromyalgia, for relieving pain. Weight gain is a widely recognized consequence accompanying Fibromyalgia. Mathkor and Ibrahim(2023) have mentioned that obesity is always associated with Fibromyalgia and their results showed that 67.27% of their patients were obese.

Source domain: Fat giraffe

Target domain: Obesity due to Gabapentin

Mappable features: The mapping features of this image serve to help viewers to understand the side effects of using Gabapentin even on the thinnest and tallest animal.

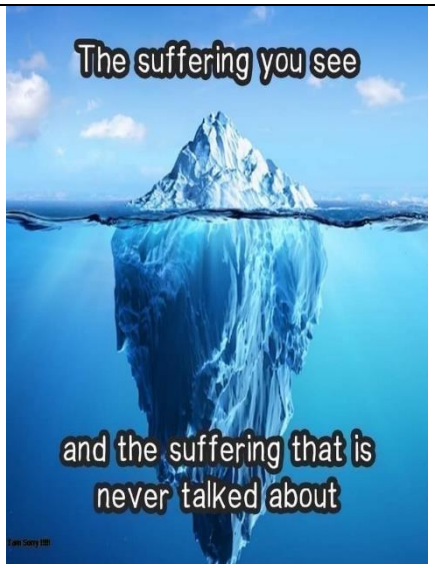


Fig. 10

Figure 10 depicts an iceberg wherein a statement is written on the top of the image, indicating the visible pain and the suffering people can see, while the submerged portion represents the hidden pain. This image effectively portrays the extent of severity associated with Fibromyalgia's pain. People can make judgments about fibro's patients from outward appearance, without possessing any understanding of the profound pain that may be experienced.

Source domain: Iceberg

Target domain: Hidden pain

Mappable features: The mapping features of the image represents the misconception of people who judge Fibro's patients and how there is unrecognized pain experienced by patients similar to the submerged part of the iceberg.

Fig 11

This visual image portrays a human body surrounded in flames, symbolizing the manifestation of flare-ups in Fibromyalgia (FM). The accompanying text indicates that flare symptoms may include heightened levels of pain, cognitive difficulties commonly referred to as "brain fog," a sensation of pressure in the head, coldness in the extremities, joint pain, inflammation, a general feeling of discomfort, swollen glands, increased fatigue, and various other manifestations. In medical news today (2024) an article discussed that physical and emotional stress are widely recognized as the major catalysts for Fibromyalgia flares. Additionally, triggers such as inadequate sleep, variations in weather conditions, and imbalances in hormones can also contribute to the start of symptoms. It is important to note that the treatment of flare-ups varies among patients, and even the duration of these episodes can differ significantly from one patient to another.

Source domain: Fire or flares

Target domain: Affected Body

Mappable features: The mapping features of this image serve to construct a vibrant and empathetic portrayal of the symptoms, employing the metaphorical concept of fire. Since fire has a destructive nature, the flames can represent how the body can be negatively affected by flare-ups.

4.4 Contextual Metaphor

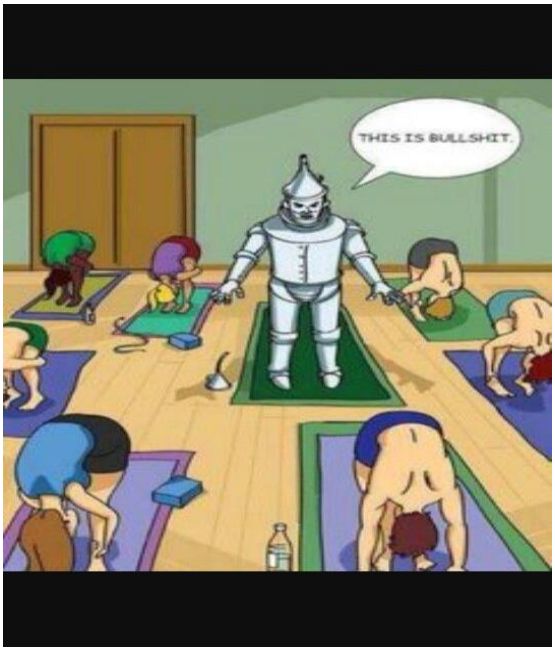


Fig 12

The image depicts a gymnasium where people are actively engaging in exercise activities. In contrast, a Fibromyalgia patient is portrayed as being similar to the Tin Man from "The Wizard of Oz," who is unable to participate in any physical exercise. The image is associated with the employment of an offensive expression, specifically "bullshit," by the tin man due to his profound inability and frustration to engage in any of these activities and the disbelief of people about his illness and minimization of his condition. The image is a good representation of bone and muscles stiffness associated with fibro.

Source domain: Tin Man from "The wizard of Oz" struggles to move because he needs lubrication for his joints.

Target domain: Fibromyalgia patients often deal with chronic pain, stiffness, and fatigue, which can make their moving challenging.

Mappable features: The mapping features of this image represents the significant physical stiffness of the muscles and bones of fibro's patients. The metallic joints of the Tin Man symbolize rigidity.

Fig 13

The image portrays a foot, wherein flames come from the toes, inflammation in the tissues of the feet while pins are inserted in the heels, and ants are observed in motion around the ankle region. Patients suffering from Fibromyalgia and foot pain commonly describe the sensation as a burning feeling experienced on the soles of their feet. Moreover, discomfort may arise when shoes come into contact with the soles or tops of their feet. The depiction of ants in the image serves as a symbolic representation of the numbness and tingling sensations experienced by patients with Fibromyalgia. This numbness and tingling sensation can also be found in arms or hands. This image provides a comprehensive depiction of various types of pain related to Fibromyalgia, including the burningsensation in the toes, stiffness in the instep, and numbness in the ankle and the sharp stabbing pain in the heels.

Source domain: Flames from toes, instep inflammations, pins in the heels and ants around the ankle

Target domain: Different sensations of Fibromyalgia foot pain

Mappable features: The mapping features of this image is that it conveys a complex sensory experience of a Fibro's foot pain as depicted in both source and target domain.

Fig. 14

The current image depicts a woman whose entire body is covered by plaster, as opposed to being covered with a blanket. The plaster serves as a symbolic representation of the therapeutic aid provided to heal the patient. In the center of the image, a written statement is displayed to show the aid to patients suffering. Irony arises from the fact that in this image, the means of healing or providing aid involves healing the spreading pain throughout the patient's entire body.

Source domain: Woman covered in plaster

Target domain: Healing from the pain

Mappable features: The present image tackles ironically the diffused pain throughout the patient\s body

5. Results and discussion

The present study aimed to explore the visual metaphor and discourse surrounding Fibromyalgia through a multi-modal analysis of images related to the condition. Fibromyalgia, as a chronic pain disorder, poses significant challenges in conveying its experiences and impact on patients due to the lack of a clear diagnostic test. As the primary objective of this study is to investigate the visual representation of Fibromyalgia through a multi-modal discourse analysis, different types of metaphors are used to depict the pain in

each image such as pictorial simile, hybrid metaphor, verbo-pictorial metaphor and contextual metaphor.

Based on the analysis conducted, it is apparent that the source domain "woman" occupies mostly 50% of the analyzed images. In developed countries like Canada, the occurrence of Fibromyalgia has been observed in approximately 1.1% to 3.3% of the population. Moreover, it is noteworthy that among patients diagnosed with Fibromyalgia, the ratio of females to males is approximately six to one. These elevated rates of Fibromyalgia are also consistent in the United States and Europe, as indicated by various studies (Daraz et al., 2011). According to Moshrif et al. (2022), in an Egyptian study conducted on patients from Al-Azhar University Hospital in Egypt, it has been theorized that Fibromyalgia displays a higher prevalence among females.

The analysis of the images revealed a diverse range of illness representations associated with Fibromyalgia. Metaphorical depictions were commonly found, often using visual metaphors to represent pain, fatigue, and the invisible nature of the condition.

Furthermore, the invisible nature of Fibromyalgia was a recurring theme in the visual representations analyzed. Many images portrayed individuals with Fibromyalgia as seemingly healthy on the outside, while experiencing pain and fatigue internally as in figures 2,3,4 and 6. Moreover, this discrepancy between the external appearance and internal experiences highlights the challenges faced by individuals with Fibromyalgia in conveying their condition to others. These visual metaphors serve to raise awareness about the hidden struggles faced by individuals with Fibromyalgia and challenge the common misconception that chronic pain disorders can always be visually identified as in figures 2, 3 and 10.

One of the key findings of this research is the prevalence of visual metaphors used to represent the experience of pain in Fibromyalgia. These metaphors often included images of sharp objects, such as needles or knives, penetrating the body, or images of flames and fire, representing the burning and intense sensation of pain as in figures7 and 11. These visual representations not only capture the intensity of pain experienced by individuals with Fibromyalgia but also convey the devastating nature of the condition.

Fatigue, another significant aspect of Fibromyalgia, was also commonly represented through visual metaphors. The visual representation in fig. 14 portrays a woman who is covered by a plaster, symbolizing the presence of pain and fatigue throughout her entire body.

Another metaphor found in the images was the representation of pain as a physical force or burden. This metaphor was often depicted through images of heavy objects, chains, or handcuffs, symbolizing the weight and impact of chronic pain on patients with Fibromyalgia. These visual representations aimed to convey the unbearable nature of the condition and the burden it places on those affected and how patients are imprisoned within their own bodies. This idea is clear in figures 6, 8,9 and 10.

Another metaphors represented are the flames and electric charges as depicted in figures 7,11 and 13.

Visual metaphors were used to represent pain, fatigue, and the invisible nature of the condition. The findings of this research contribute to a deeper understanding of how Fibromyalgia is visually portrayed and the potential implications of these representations on public awareness, stigma, and the experiences of individuals living with the condition. By applying Forceville's model, the study offers a novel perspective on how Fibromyalgia is visually communicated. Further research in this area can continue to shed light on the visual discourse surrounding Fibromyalgia and its impact on individuals and society

6. Conclusion:

The present study aimed to investigate the role of visual metaphor in representing pain through images and identify the types of pains portrayed. The findings of this research shed light on the powerful and reminiscent nature of visual metaphors in communicating the complex and subjective experience of pain. By exploring various visual metaphors used in pain representation, this study contributes to our understanding of how imagery can effectively convey the emotional and physical aspects of pain. The analysis of pain representation through visual metaphors revealed a range of themes and symbols commonly associated with pain. These included bodily expressions, such as sharp objects and distorted figures, which visually conveyed the physical sensations of pain.

Furthermore, this study identified different types of pain that were portrayed through visual metaphors. The findings showed that physical pain was a dominant theme, with images depicting various forms of bodily discomfort, injury, and illness. These representations highlighted the intensity, severity, and location of physical pain, enabling viewers to empathize with the depicted suffering. Emotional pain was another significant type of pain portrayed through visual metaphors, emphasizing feelings of sadness, grief, heartbreak, and despair.

In addition to physical and emotional pain, this study also revealed the representation of psychological pain through visual metaphors. Images depicted mental distress, anxiety, depression, and inner conflicts through symbols like the ballerina.

The implications of this study extend beyond the academic realm and have practical applications in various fields. In the healthcare sector, understanding the visual representation of pain can aid healthcare professionals in effectively communicating and empathizing with patients. Visual metaphors can be used as a tool for patient education, enabling individuals to better articulate and express their pain experiences. Additionally, these findings can be utilized in art therapy, where visual metaphors can help individuals explore and process their pain in a non-verbal and creative manner.

In conclusion, the present study has demonstrated the power of visual metaphors in representing pain through images. By exploring the various types of pain portrayed and the associated metaphoric symbols, this research contributes to our understanding of pain as a complex and multifaceted experience.

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APPENDIX

No.	SOURCE
Fig. 1	• The mighty.com (online health community) • Fibromyalgia Symptoms (Facebook Page) • Pinterest

Fig. 2	• Me and My ME &Fibro (Personal blog) • Fibro wide awake club (Facebook page) • Fibro colors Fibromyalgia Awareness (Facebook Page) • Fibromyalgia Diary (Facebook Page) • Pinterest
Fig. 3	• Faces of the world (Facebook Page) • Dr. joseph. Murphy (Instagram) • Life After Spinal Cord Injury (SCI) –(Facebook Page for medical services) • Pinterest
Fig. 4	• Fibro colors Fibromyalgia Awareness (Facebook Page) • Brain-Body control Centre of Therapy and Exercise Kolymbari Chania (Facebook Page-Physiotherapist) • Friends& Family for Fibromyalgia# FFF (Facebook Page) • Fibromyalgia Diary (Facebook Page) • Twitter • Pinterest
Fig. 5	• Pinterest • Twitter
Fig. 6	• Fibromyalgia in 25 pictures (Personal Blog) • Berlin Art parasites (Facebook page) • Fibromyalgia Diary (Facebook Page) • Pinterest • Twitter
Fig. 7	• Fibromyalgia Awareness (Facebook Page) • Fibro Frazzeld-Fibromyalgia and you (Facebook Page) • FibroMy Support NZ(Facebook Page) • FibroFighters (Personal Blog) • Fibromyalgia Diary (Facebook Page) • Fibromyalgia Symptoms (Facebook Page) • Pinterest
Fig. 8	• Fibro Awareness (Facebook Page) • Pinterest

Fig. 9	• Fibro and chronic pain support (Facebook Page) • Fibromyalgia Diary (Facebook Page) • Pinterest • Twitter
Fig. 10	Fibromyalgia Symptoms (Facebook Page) Pinterest • Twitter
Fig. 11	Living Smarter with Fibromyalgia (Personal Blog) Pinterest
Fig. 12	Fibro Awareness (Facebook Page) Fibromyalgia symptoms(Facebook Page) Pinterest
Fig. 13	• Hana SEP (Facebook Page) • Pinterest
Fig. 14	Pinterest Twitter Reddit fórum