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Voices of discomfort: metaphorical conceptualisations of physical pain in Algerian Arabic

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This study investigates the metaphorical representations of physical pain amongst Algerian Arabic speakers. To uncover these conceptualisations, an oral Discourse Completion Test (DCT) was administered to 30 Algerian university students. A qualitative approach was used to analyse the data and generate the conceptual metaphors used. Grounded in Kövecses model of metaphorical conceptualisations, this research unveils that Algerian Arabic speakers utilise nine distinct metaphorical conceptualisations when portraying physical pain/discomfort: evaluative metaphors, fire metaphors, sharp object metaphors, container metaphors, animal metaphors, creeping insect metaphors, burden metaphors, swing metaphors, and physical force metaphors. These metaphors are further explicated in light of linguistic and cultural backgrounds to shed light on the intricate weave of metaphors in Algerian Arabic, underscoring their pivotal role in encapsulating physical and emotional experiences. The study recommends further scholarly research into the manifold metaphorical renderings of diverse emotional states across Arab communities.

KEYWORDS

conceptual metaphors, cognitive linguistics, pain, Algerian Arabic, communication

1 Introduction

Across cultures and communities, humans grapple with pain, whether rooted in physical ailments, emotional strains, or a fusion of both. In articulating these experiences, we often engage with those around us, from family members and peers to medical professionals. This dialogue is not restricted to mere words; it encapsulates the tonality, gestures, and even subtle facial cues. Metaphors, given their figurative nature, frequently emerge as powerful tools in conveying the nuances of pain, influenced heavily by our linguistic and cultural bearings. Drawing from the insights of Health Psychologists (Peacock and Patel, 2008, p. 6), culture shapes our behavioural patterns, health narratives, and emotional perspectives. Given this backdrop, it becomes pivotal to probe into the linguistic frameworks across diverse cultures in their portrayal of emotions and sensations. This research, in particular, navigates the metaphorical representations of pain within Algerian Arabic, a widely spoken dialect in Algeria.

We initially use vocalisations and non-verbal cues like crying to express our pain during infancy. As we age, we develop the capacity to express our emotional states through language. According to Ludwig and Anscombe (1953), caregivers are crucial in helping kids learn how to express their pain verbally. Specifically, parents teach kids how to use 'new pain-behavior'

(p. 89). Language is, in fact, the most complete form of communication, providing a wide range of verbal and nonverbal tools that allow people to express their ideas and intentions more clearly and effectively. Metaphors are one of the many linguistic devices we have at our disposal, and they play a significant role in both our spoken and written communication (see Rababah et al., 2020, 2022; Abu-Rumman and Rababah, 2022; Benyakoub et al., 2022). According to Carter (2012, p. 138), ‘metaphors are often so deeply embedded in language and culture that they go unnoticed, reflecting their automated and conventionalized role.’ In other words, metaphors frequently appear in our speech, whether we are aware of them or not.

Metaphor, in essence, refers to ‘the utilisation of language to denote something other than its original reference or literal meaning, with the aim of suggesting a resemblance or establishing a connection between the two entities’ (Knowles and Moon, 2006, p. 2). This figurative use of language permeates our thoughts, experiences, and everyday actions to such an extent that we often employ it without conscious awareness (Lakoff and Johnson, 1980, p. 4). When people struggle with the experience of pain, they often find themselves at a loss for words, struggling to capture the precise nature of their suffering. Consequently, they turn to the use and creation of novel expressions as a means of conveying their innermost sensations. Employing figurative language, such as metaphors, becomes one of these mechanisms for articulating such sensations since crying, screaming, or resorting to literal language may prove inadequate. Metaphors have undergone extensive exploration within a variety of disciplines and fields, including literary studies, philosophy of language, psychology, and linguistics. In particular, this paper explores the linguistic analysis of pain metaphors, probing their cognitive underpinnings in language users’ minds. As a result, it is an interdisciplinary project that looks at metaphors and how they relate to linguistics and psychology (Abu-Rumman and Rababah, 2023).

Often, physicians encounter challenges in accurately diagnosing patients, which can stem from communication gaps between them. Kugelmann (1999) and Lascaratou (2007) attribute these communication issues to the rarity with which pain sensations are described. Schott (2004) posits that patients find it challenging to articulate their pain, particularly when their interlocutors have not personally experienced similar sensations. As a result, patients frequently resort to analogies to aid comprehension. Whilst the study of emotional metaphors has received considerable attention in recent decades, research on pain metaphors, particularly in the Arabic language, remains limited. Existing research investigated conceptual metaphors in subtitling (Alzaabi and Rababah, 2023), in political discourse (Abu-Rumman and Rababah, 2022), and in media discourse (Al-Yasin and Rababah, 2021). This study is of particular significance as it endeavours to delve into the conceptualizations of pain by Algerians. It could provide a valuable resource for patients trying to communicate their pain more effectively. In addition, it might enable physicians to gauge the intensity of the pain their patients are experiencing, thereby facilitating smoother communication during the diagnostic process. The primary objective of this research is to understand the conceptualisations of pain amongst Algerian Arabs. It also aims to examine metaphorical Arabic expressions related to pain, as articulated by Algerian PhD students discussing their physical pain experiences. Specifically, the study seeks to address the following questions: (1) Which metaphorical expressions related to pain are

prevalent in Algerian Arabic? (2) How are pain metaphors interpreted or understood in Algerian Arabic?

2 Literature review

Native speakers across various languages frequently employ metaphors to describe their experiences and perceptions of the world (Lakoff and Johnson, 1980). Notably, developmental research posits that around the ages of nine or ten, L1 children commence the understanding of figurative language, often defaulting to literal interpretations (see Levorato et al., 2004; Benedek et al., 2014). Levorato et al. (2004) delved into how context and familiarity impact children’s grasp of idioms, which often have metaphorical underpinnings. Their hypothesis centred around a ‘figurative competence’, encompassing various cognitive skills, which they found children developed over time. Benedek et al. (2014) explored the neural underpinnings of figurative language production, underscoring the significance of specific brain regions in the creation of novel metaphors.

The use of metaphors and metonymies is pervasive in depicting physical pain. Medical experts have pioneered numerous studies on this subject, with some drawing from interviews with patients. Aldrich and Eccleston (2000) identified eight categorisations of everyday pain. These encompass perspectives like pain viewed as a malfunction, an opportunity for self-growth, a spiritual journey, an external invasion, a means of coping and control, an abuse, a homeostatic mechanism, and a form of power. Central to these themes is the connection to the self and the transformative potential of pain. Bonch-Osmolovskaya et al. (2009) highlighted that patient discourses on pain often weave in components from disparate semantic fields, employing them metaphorically to articulate the sensation. Examples include metaphors drawn from the realm of fire (‘my head is burning’), motion (‘my stomach is jumping’), and emotions (‘my stomach despises me’).

Mashal et al. (2011) embarked on two experiments to probe how age influences the perception of novel metaphorical relations. Their discoveries showed that older adults perceive a significantly larger proportion of metaphors as novel compared to their younger counterparts. This disparity was attributed to age-related shifts in brain functionality. Older individuals demonstrated reduced activation in the left inferior prefrontal cortex during encoding. Additionally, they frequently recognised meaningful phrases as familiar, possibly stemming from enhanced connectivity between lexical nodes and activated stored concepts. Beaty and Silvia (2013) investigated the intersection of creative cognition and intelligence to determine how various intelligence factors affect metaphor generation. Their research sought to discern the influence of fluid intelligence (GF), crystallised intelligence (GC), and broad retrieval ability (GR) on metaphor creation. Participants underwent intelligence assessments and crafted both conventional and innovative metaphors. Their findings underscored that the richness of creative metaphors correlates with higher-order cognitive mechanisms, whilst traditional metaphors are more rooted in established knowledge.

Al-Abdullah (2019) examined the metaphorical lexicon employed by Jordanians to describe pain, comparing it to English expressions. Whilst some conceptualisations were universally shared—like equating pain to fire or sharp objects—unique expressions emerged in English, such as ‘pain is a captive animal’. On the topic of metaphor

comprehension, Glucksberg et al. (2001) posit that beyond linguistic insights, contextual understanding is vital—a stark contrast from literal interpretations. Rataj (2014), employing electrophysiological tools, found discernible differences in the comprehension of metaphorical vs. literal language.

Johnson et al. (2022) investigated the use of pain metaphors in language and the impact of pain-related metaphors on people's perception and treatment of pain. More specifically, the study highlighted the need to shift from using 'damage-focused' metaphors, which can negatively affect the patient and lead to unsuccessful treatment, to more 'constructive' metaphors that assist patients' understanding of pain. The study adopted a narrative review approach to data analysis and concluded that destructive (e.g., 'fighting pain') rather than constructive (e.g., 'protector') metaphors prevail in the use of figurative language about pain. These metaphors were found to negatively affect people's understanding of pain which is likely to lead to ineffective treatment. The study concludes by raising a concern about the use of these metaphors and calls for a shift in selecting our metaphorical expressions when dealing with concepts of pain.

Using the Conceptual Metaphor Theory (CMT) and Relevance Theory (RT), Metaxa (2023) explored the metaphorical expressions used in language and how they are conceptualised within the CMT and RT frameworks. The study focused on the metaphors used to describe pain experienced by women during pregnancy, and these metaphors convey women's emotions to interlocutors. The study used a qualitative approach to analyse the data collected from an online forum created by the Miscarriage Association in the UK. The researcher collected the metaphors used in this forum to see how they relate to existing conceptualisations of pain metaphors. The results indicated that most pain metaphors conform to the CMT framework, such as PAIN IS A FORCE. The study concluded that an integrated approach to analysing pain metaphors is essential to better understand the cognitive aspects of metaphors and how they communicate emotions in communication.

Disney (2020) examined metaphorical descriptions of pain as used by patients with low English proficiency and who speak English as a second language. The study also aimed to identify the impact of these metaphorical descriptions on people's understanding of and reactions to pain. The study utilised a qualitative approach to analysing the data retrieved from an online forum called 'PainSupport.co.uk' to gain insights into the common metaphors used and how these metaphors and depicted in the second language. The corpus included 2.3 million words, and corpus-based software was used to analyse the data. The results showed that some metaphors are traditional metaphors (e.g., 'burning pain'). However, the study found that patients used new metaphors to describe their experiences with pain. The study also found that metaphors used to describe pain by native English speakers are challenging for non-native speakers and thus calls for a need for healthcare providers to be aware of these challenges and use universal metaphors that might be more accessible to non-native speakers.

3 Methodology

3.1 Sampling

This study involved 30 Algerian university students as participants. All participants are native speakers of Arabic, predominantly

postgraduate female students affiliated with the Department of English Language and Literature and the Department of Sciences at the University of Jordan, Amman, Jordan. They were pursuing their doctoral degrees at the time of data collection. Their ages span from 25 to 27 years.

3.2 Data collection

To achieve the objectives of this study, an oral Discourse Completion Test (DCT) was devised. The DCT is a method of obtaining data about figurative and pragmatic uses of language (e.g., Alghazo et al., 2021a,b). This instrument presented participants with 12 hypothetical scenarios related to physical pain experiences, such as enduring a headache, stomachache, or eye discomfort. In each scenario, participants were prompted to imagine themselves conveying their pain symptoms to a physician. These communicative situations, covering varied aspects of physical pain, aimed to capture the metaphorical language employed by Algerians when expressing pain. Efforts were made to ensure participants felt at ease during recordings, fostering a setting conducive to obtaining organic, authentic data.

3.3 Pilot study

The challenge of assessing emotions and their linguistic expressions stems from their deeply rooted presence within an individual's psychological and cognitive frameworks. Bonch-Osmolovskaya et al. (2009, p. 111) emphasised the inherent difficulty, noting that 'the non-observability of pain complicates the process of language data elicitation and their subsequent classification'. Recognising this challenge, a pilot study was initiated to validate the efficacy of the oral DCT. This aimed to ascertain whether Algerians resort to metaphorical expressions in verbalising their pain experiences. For this preliminary investigation, five Algerian Arabic-speaking PhD students from the University of Jordan participated. Each participant was individually visited in their residences to gather data. The pilot study quite concretely illustrates the richly metaphorical language of Algerian Arabic-speaking PhD students within which bodily pain is conceptualised and expressed in cultural as well as linguistic contexts. The participants' utterances convey physical sensations that are not just expressed but more vividly depicted through the use of metaphors, which describe the intensity of their discomfort and type. For example, headaches are described as explosive: 'راهراسي باه يتطرطق' (Lit. My head is going to explode). This is also the case with the stomach ache, which is depicted as being cut by knives: 'كرشي اهي تتقطع'. The latter stands for the sharp, piercing quality of the pain in the stomach. If it is the tonsils that are inflamed, the sensation of burning in the throat is described as though a fire is going on 'نار شاعلة في قراجمي'. The metaphoric expressions not only make this communication richer but richly depict the understanding of how their cultures view and experience pain as some oppressive entity that comes either to invade or consume a body. These results guided us in the design of the DCT, which aimed to elicit the metaphorical expressions used by an Algerian sample to describe their bodily pain.

4 Research approach and theoretical framework

At its core, this research adopts a qualitative approach grounded in the Conceptual Metaphor Theory (CMT) as advanced in Cognitive Linguistics by Lakoff and Johnson (1980) and Lakoff and Johnson (2003). A more specific orientation is drawn from Kövecses' (2005) conceptual theory on happiness and pain, which serves as the foundational framework for analysing the participants' figurative expressions relating to the notion of pain. CMT has gained significant traction not only within the realm of Cognitive Linguistics but also in the broader context of Social Sciences. Central to the theory is the idea of mapping across two domains: the source domain and the target domain. Such mapping, characterising a plethora of metaphorical expressions, provides insights into diverse concepts, including, prominently, the domain of emotions (Kövecses, 2000). Within this theoretical construct, the source domain pertains to tangible, concrete experiences, whereas the target domain navigates the abstract (Kövecses, 2016). Conceptual structures, as posited by this theory, are inherently organised via these cross-domain mappings. Whilst certain mappings emanate from pre-conceptual experiences, others evolve from these foundational experiences, culminating in intricate conceptual frameworks (Evans, 2006). Within the purview of this research, the concept of pain occupies the central stage in the target domain.

Anchoring the present investigation is Kövecses' (2005) analytical model of pain descriptions. This framework is built upon the premise that 'Emotions are conceptually represented as cognitive models' (Kövecses, 2005, p. 3). Delineating pain metaphors, Kövecses identifies three primary classifications: evaluative, phenomenological, and force-dynamic. The ensuing discussion will delve into these specific metaphors of pain:

Evaluative metaphors:

PAIN IS DOWN, e.g., we descended into pain and darkness.

PAIN IS DARK, e.g., His eyes were darkened by pain.

PAIN IS HEAVY, e.g., I feel weighed down with pain.

Phenomenological metaphors:

PAIN IS CAPTOR/PRISON, e.g., She was a prisoner shackled to her pain.

PAIN IS A SHARP OBJECT, e.g., A sharp stab of pain made her sit back down.

PAIN IS AN INTRUDER.

PAIN IS A TORMENTING ANIMAL.

PAIN IS FIRE, e.g., Pain is a fire that can devour the whole body.

Force-dynamic metaphors:

PAIN IS PRESSURE IN A CONTAINER, e.g., He was not strong enough to hide the exploding pain.

PAIN IS A NATURAL FORCE, e.g., He was trying to push back the waves of pain.

PAIN IS A PHYSICAL FORCE, e.g., He was suddenly knocked down by pain.

PAIN IS A SOCIAL SUPERIOR, e.g., My life is ruled by pain.

PAIN IS AN OPPONENT, e.g., She's struggling to overcome pain.

PAIN IS A CAPTIVE ANIMAL, e.g., My pain got out of hand.

PAIN IS INSANITY, e.g., In the last hours she grew crazy with pain.

PAIN IS A FORCE DISLOCATING THE SELF, e.g., she was beside herself with pain.

PAIN IS A BURDEN, e.g., Life is too short to carry pain around (Kövecses, 2005, p. 8, 9).

5 Findings and discussion

This section delves into the insights and findings derived from the oral Discourse Completion Test (DCT). The emphasis is on a qualitative examination of the myriad metaphorical expressions the participants employed in articulating their experiences of pain. From the vantage point of cognitive linguistics, metaphors are not just linguistic expressions but are emblematic of underlying mental processes. The study revealed a plethora of metaphors in participants' narratives of their physical pain. Central to these metaphors is the association between a source domain and a target domain. Such findings align seamlessly with the assertions of Lakoff and Johnson (1980), suggesting that elements of one experiential conceptual domain (the target domain) are often construed and understood through elements of another domain (the source domain). Typically, the source domain leans towards the tangible and the concrete. Evidently, in this study, participants gravitated towards more concrete descriptors when articulating their pain, resorting to imagery like 'heavy weight', 'fire', and 'sharp object', amongst others.

5.1 Evaluative metaphors

An 'evaluative metaphor' helps convey the speaker's perception or judgement about a particular subject, in this context, pain. Kövecses (2005) delineates this category of metaphors into three specific subtypes: PAIN IS DOWN, PAIN IS HEAVY, and PAIN IS DARK. Within the PAIN IS DOWN subtype, there is a spatial representation suggesting that illness is perceived as being 'downward' in orientation. This category also encapsulates the notion of PAIN IS HEAVY, which conveys the sensation that pain is akin to a burdensome weight placed on the body or a specific organ.

The evaluative metaphors in the study shine a light for the researcher on how participants express their estimations and valuations of pain. Those are, in particular, about the unbearable and oppressive pain as if it works as a physical burden or force pressing down on the body. For instance, the phrase 'حاسة كي شغل واحد راه معفسلي على صدري' (Lit. I feel like someone is treading on my chest.) describes the pain in a very graphical representation as a force pressing down and giving extra weight to the suffocating feeling, which is felt in shortness of breath. Another metaphor, 'جسمي مدقق' (Lit. My body is broken down.), generally connotes a state of feebleness with the use of the image of a body broken by the weight of the pain to emphasise the overall debilitating impact it has on the strength and vitality of the individual. Furthermore, 'حاجة راهها ضاغطة عليا' (Lit. Something is pressing on me.) brings back this idea of physical being oppressed, the way pain feels like something unrelenting and pressing, making one have a better notion of how severe and unrelenting it is. The metaphors reflect not only physical but also emotional and psychological turmoil

inflicted by pain, framing it as a pervasive heavy burden falling on one's shoulders.

The third subtype, PAIN IS DARK, metaphorically links pain with darkness. This aligns with Al-Abdullah's (2019) research, which found that Jordanian Arabs equate pain and illness with darkness. Such a connection is anticipated, as individuals, when unwell, often experience weakness. This debilitation can foster feelings of pessimism and sadness. Conventionally, such negative sentiments are symbolised by darkness. The evaluative metaphors bring to the study an association of pain with darkness, which is filled with poignancy and embodiment full of the effects of debilitation—physical discomfort and emotional strain. This category, especially that of the subtype 'PAIN IS DARK', highlights that pain is not just a physical sensation; it is a mental and emotional experience that involves dimmed perception and mood. For example, the phrase 'عينيا ظلامولي' (Lit. My eyes darkened.) used by a participant suffering from eye pain is explanatory and self-revealing, meaning that pain can make someone see unclearly as though darkness is put in front of their eyes. Similarly, in a general weakness state, there is 'راني انطفيت' (I am burned out.) and 'طافية و باغية نطيح' (Lit. I am burned out and I want to fall down because of fatigue), which use extinguishing and darkness imagery to get across extreme fatigue and emptiness. These two metaphors very well depict the engulfing nature of the pain: it moves beyond the symptoms and into the psyche; it illustrates how pain takes hold of one's state of being and plunges it into a profound darkness.

5.2 Fire metaphors

Pain, a complex and multifaceted sensation, often finds articulation through metaphoric language. One potent strategy is to elucidate pain by referencing its causative factors. The aetiology of bodily pain can often be traced to tissue damage or injury, eliciting reactions ranging from subtle physiological responses like 'jumping' to overt expressions like 'groaning', 'howling', or distinct facial contortions (Kövecses, 2005, p. 9). Al-Abdullah (2019) further postulates that these cognitive models are rooted in causation, leading to the categorisation of the resultant metaphors as force-dynamic in nature. A recurring theme in the present investigation was the likening of pain to fire. In essence, participants expressed pain in certain bodily regions by invoking imagery of fire or intense heat. This observation mirrors Semino's (2010) assertion that pain can be metaphorically depicted through the source domain of CAUSES OF PHYSICAL DAMAGE, where motifs of heat or fire are prevalent. Intriguingly, the data suggests that such metaphorical constructs are not confined to a specific linguistic or cultural milieu but are also prevalent amongst Algerians.

The findings of this study highlight that fire metaphors (PAIN IS FIRE) are liberally employed to describe all types of pain and the level at which the pain was severe and intolerable for the participants. Such metaphors directly contrast pain with the consuming and out-of-control characteristics of fire, thus giving an illustrative description of the discomfort. For example, 'شاعلة النار في قراجمي' means the fire is in my throat and thus means there is a fiery, intrusive ache that preoccupies the sufferer. In another Arabic expression, some participants used 'راهم' which describes pain in the eyes and passes the meaning of an acute, piercing, scorching discomfort as though flames were directed at one's eyes. The expression 'الحمى راهي شاونيتي' (Lit. The fever has grilled

me). The participant used such an utterance to mean that the very high temperature grills the body; hence, it shows how the extremeness of heat from high body temperatures is unbearable. The expression 'ظهري يحرق' uses back pain to illustrate the acute, fiery pain felt in the back, likening it to being scorched by flames. Lastly, 'كرشي حرقنتي' for stomach pain literally says, 'My stomach is burning me'. This is a fierce, burning kind of pain inside the stomach—as if it were on fire. All these fire metaphors obviously depict the very serious, often colossally disabling nature of pain, portrayed as a force that is aggressive in its attack against the body—engulfing and consuming it.

The data also showed that the participants described pain as a container (PAIN IS A CONTAINER) that is filled with such an intense and often overwhelming aspect of physical discomfort. This creates an image of the internal forces that build up and then break free from the physical limits. A good example would be 'خارجة النار من جبهتي', which translates to the fire being extinguished from my forehead. That describes a cold and goes on to express that the fever or inflammation is like an imprisoned fire that has become too violent to be safely kept within and, therefore, breaks out. This type of metaphor is very expressive in its way of explaining the intensity of pain and the externalisation of an internal feeling. Participants also used expressions like 'I feel there is a fire inside them' (حاسة الحرق فيهم الداخل). Discussing sore eyes gives one the impression of a kind of burn, scalding kind of hurt that is pent in within the eyes that really emphasises containment and the intensity of the hurt within the small sensitive organ. Hence, 'النار تطلع مع الكور اتاعي' (The fire is going out from my body), also describing cold symptoms, and 'راني نشعل من الداخل و برأ' (I am burning from inside and outside), describing a fever, both present the body as a vessel that cannot contain this burning pain, which is now escaping or radiating outward, indicating a fierce internal struggle with illness. 'حريقة في عينيا' (A fire in my eyes) and 'النار تخرج من عينيا' (the fire is going from my eyes) both mean a burning pain in the eyes themselves, like the eyes were a vessel holding this fiery, agonising element that can both be so intense and so all-consuming it must escape. The metaphorical expression of fever through boiling blood, such as in the couplets 'الدم اتاعي يغلي' and 'راسي يغلي من السخانة', is used not to say a high temperature state but a dynamic and unsettling turmoil inside the body—the image of a liquid in a pot under a constant, strong heat, ready to overflow or explode. These container metaphors powerfully evoke the pressure, the holding, the containment, and sometimes the explosive release of pain. They allow vivid insights into the physical and emotional sensations related to all kinds of pain.

5.3 Sharp object metaphors

Whilst fire serves as a popular metaphorical framework for depicting pain, another poignant imagery recurrently used by Algerians is that of a sharp object. Drawing parallels between the sensation of being hurt or burned and the pain induced by sharp objects offers a vivid portrayal of pain's aetiology. Peters (2004) expounds on this by emphasising the role of hostile agents, such as weapons, in the origination of pain. Just as a weapon can inflict harm, so can a pointed object serve as an instrument of pain. This causative relationship is deftly captured in the metaphorical representation where the infliction by a sharp object (source domain) is likened to the experience of pain (target domain), as conceptualised by Lakoff and Johnson (1980). A fascinating dimension to this discussion is

introduced by [Iannetti et al. \(2013\)](#). Their exploration delineates the congruence between pain from tangible experiences, like treading on a sharp entity, and the intangible anguish of social exclusion, encapsulated in the metaphor of a 'broken heart'. Such metaphors, although seemingly founded in literary artifice, evoke potent emotions that closely mirror physical pain. The data from the study corroborates this association, revealing that Algerians frequently harness the metaphor of sharp objects to articulate pain.

The study also found that pain is metaphorically represented as a sharp object. These metaphors link the physical feelings of pain to language representation, which reflects the subjective experience of the person. In this Arabic context, pain is likened to a sharp object to show the severity and intensity of the pain. The examples above show how Algerian Arabic speakers describe the imagery of pain implying a cutting or slicing feeling that reflects the degree of discomfort of the person. For example, 'رهاكرشي تتقطع كي شغل الخداما را هم يقطعوا فيا' (Lit: My stomach is cut off as if knives are cutting me) is produced by the participant to describe his/her severe stomach ache, representing it as a sharp object that cuts their organs. In addition, the pain is described as being relentless similar to the act of cutting by a sharp object. Example 2: 'عروقها را يحين يتقطعوا' (Lit: Its veins are going to cut off) is produced by the speaker to describe pain in the eye using the metaphor of sharp object to indicate the intense pain resulting from the veins ache. We notice that this metaphor is used to reflect the severest pain in the most sensitive organs to show the agony of the pain. Example 3: 'حاسة مسمار راه الداخل' (Lit: I feel a nail is inside) represents ear pain using the metaphor of a sharp object (nail) that causes severe and invasive pain. Example 4: 'مصارني يتقطعوا' (Lit: My bowels are cutting off) describes pain in the stomach using the metaphor of a sharp object and representing the bowels being cut by the sharp object to reflect the cramping pain they are experiencing.

These examples showcase the effect of the sharp object metaphor in Algerian Arabic to convey a feeling of discomfort and severe pain in the most sensitive organs of the body. The use of PAIN IS SHARP OBJECT metaphor reflects not only the physical feeling of the person but also the affective pain that they experience during the illness, using conceptual metaphors to picture pain as a tangible object to others. This depiction is cultural in nature and reflects the attitudes of speakers towards pain to show the seriousness of the feeling and gain empathy from others. More importantly, such depiction reflects the cognitive dimension of pain perception by speakers of Algerian Arabic, illustrating how language is shaped by the experiences of its users.

5.4 Container metaphors

In Algerian discourse about physical pain, one prominent metaphorical representation is the 'container metaphor'. This suggests that individuals perceive the body, or portions of it, as analogous to containers. The genesis of pain is believed to occur when there's an element within this 'container' causing constriction, prompting it to potentially rupture or tear. Pain can also arise from entities within, such as fire, disorder, insects, or stones. This observation aligns with the findings of [Al-Abdullah \(2019\)](#), who noted that Arabs employ container metaphors to articulate their experiences of pain, envisioning the body as a vessel. As [Al-Abdullah](#) elaborates, "This container possesses dynamic elements that exert pressure, potentially

causing it to explode, tear, or crack' ([Al-Abdullah, 2019](#), p. 350). In this metaphorical framework, the source domain represents a force or harmful entity contained within, whilst the target domain signifies pain felt in the body or a specific part thereof. [Kövecses \(2005\)](#) posits that pain, conceptually, shares attributes with other emotions, falling under the broader category of force-dynamic metaphors. This parallelism may arise either because these emotions have analogous cognitive structures or because their shared cognitive structures dictate the selection of these conceptual metaphors.

The data also included responses that represent pain as a container that is essential for transmitting the difficult sensations of pain. PAIN AS CONTAINER metaphor is evocative in showing the internal feelings of pain as being contained in the person's body. This metaphor depicts the body as a container that includes different types and degrees of pain, which reflects integrity even in the feeling of pain. When an ache is experienced in a particular organ of the body, the whole body aches as if it sympathises with the sick organ. In this context, Algerian Arabic speakers provided examples of metaphorical conceptualisations of pain as a container which disrupts the whole body. For example, 'راهصدري مبالغ عليا' (Lit. My thorax is closed) describes the feeling of lack of breath using the metaphor of a closed container. Here, the thorax organ is conceptualised as a container that does not function properly because of the pain. This metaphor reflects the feeling of obstruction and blockage of airflow, which describes the physical discomfort caused by the pain. In another example, 'راسي راه باه' (Lit. My head is going to explode) is used to convey the imagery of the head being a container that is going to explode because of the pressure of pain inside it. This metaphor represents the intensity of the pain, highlighting the often-unbearable feeling of a headache. A third example: 'حاسة كاش حاجة راها في وسطه' (Lit. I feel that something is inside it), is also related to headache and represents the head as a container that includes an unwelcome feeling. This metaphor describes the degree of discomfort and intensity of the feeling, where the person is unable to even identify where the pain is and what causes it. In a further example, 'حاسة بلي حاجة راها الداخل تخرخش تخرخش' (Lit. I feel that something is clunking inside) metaphorically represents an earache as a container in which something is moving and causing some clucking inside it. This imagery depicts the disturbing feeling of the pain and shows the nature of the pain that causes dysfunction in the ear's auditory perception.

These examples that include PAIN AS CONTAINER metaphor from Algerian Arabic speakers' responses, highlight the richness of the language in describing the feelings caused by pain. By representing the body as a container, they show it as a box that includes one's physical and emotional states. This creative use of language reflects the connection between language and culture and shows how cultural experiences shape language use. This particular metaphor is influential in conveying the feelings of pain because they reflect the everyday experiences of most people who are pressurised because of life commitments. That pressure causes the body to explode at some point and causes not only physical pain but also psychological pain to the person and the ones around him/her.

5.5 Animal metaphors

The metaphor PAIN IS AN ANIMAL is commonly employed by Algerians. Here, physical pain is conceptualised as a wild creature

assaulting its victim. Such an animal might harm, fatally wound, or even consume the sufferer. Interestingly, these findings diverge from those of Al-Abdullah (2019), who observed that amongst Arabs, especially Jordanians, this metaphor is predominantly used to articulate pain stemming from persistent or chronic ailments. Kövecses (2005) classified this metaphorical concept as a subcategory of the force-dynamic metaphor, which spans across a range of emotions. When individuals experience pain, they often perceive themselves as vulnerable, overpowered by this metaphorical beast.

The data also show that Algerian Arabic speakers use animal metaphors to describe pain, which reflects the culturally and linguistically rich means to represent the severity of the pain and the feelings associated with it. Such a representation is used to transform the abstract feeling of pain into animate objects that are aggressive to the person. The examples elicited from Algerian Arabic speakers demonstrate this dynamic nature of pain by metaphorically conceptualising it as an animal. For example, 'شغلي راهم ياكلوا' (Lit. As if they are eating) represents a sore throat, which is severe enough to be likened to an animal that eats the throat. This metaphor suggests an aggressive action on the part of the pain likening it to a wild animal, emphasising the consuming nature of pain. The example 'الضرس تضر تجيبي' (Lit. My molar hurts. It comes at night only) describes the pain resulting from a toothache using the imagery of an animal that gets active at night. This metaphor illustrates the unpredictable nature and behaviour of pain, which targets the most vulnerable times of the person to the extent that it disrupts sleep. The example 'كي شغل تفتن عارفة' (Lit. As if it wakes up. It knows the time) also describes toothache, representing it as an animate entity and likening it to an animal that targets the person at specific times. This animistic description pictures the pain as a predator that is aggressive at the most vulnerable times of the person. The example 'حاكمتني حكة' (Lit. A scratcher caught me) creates the metaphor of a scratcher to represent the feeling of skin allergy, which is animalised to show the severity of the attack of the allergy. This metaphor shows the allergy as an animal that attacks the victim and describes the physical feeling and aggressiveness of the reaction to this allergy.

These examples show how the PAIN IS ANIMAL metaphor is used to make it animate and something that can be seen and confronted at times, such as battles between humans and wild animals. This metaphor reflects the richness of the language and culture, which allows the speaker to use their experiences in the environment to understand their bodies and their enemies. Such metaphors which are used to describe pain are illustrative imageries of the actions of the pain, reflecting the intersection between language, culture, and conceptualisation. They indicate that humans can conceptualise their physical and psychological feelings by externalising them through reference to the environment.

5.6 Pain is a creeping insect

In Algerian discourse, another metaphor commonly employed to depict pain is 'PAIN IS A CREEPING INSECT'. Al-Abdullah (2019) linked this metaphorical usage predominantly to non-severe and chronic illnesses. The results from this study corroborate Al-Abdullah's assertions. Participants often resort to such metaphors to articulate specific symptoms of their pain or the onset of an ailment, such as itching or tinnitus.

The data also included responses that metaphorically represent pain as a creeping insect. This is a conceptualisation that pictures the invasive nature of pain as a persistent experience. This metaphor is taken from the natural function of creeping insects, which are creatures that are related to discomfort. This depiction shows the power of metaphor in representing the quality of pain. The examples below are found in the data from Algerian Arabic speakers and demonstrate the use of PAIN AS A CREEPING INSECT metaphor in describing the severity of pain physically and emotionally. The example 'راهيوذني ترن' (Lit. My ear is buzzing) describes the feeling of pain resulting from an ear infection. The metaphor is used here to show the sound of the pain buzzing, which is normally the sound of creeping insects. This depiction effectively delivers the constant and aggressive feeling experienced during the painful ear infection. This is a sound that is felt by the person, reflecting the presence of such insects that make the surrounding environment uncomfortable. The example 'السطر' (Lit. The pain is stinging me) uses the imagery of a creeping insect that stings the stomach of the speaker. This metaphor implies the severe and sudden pain that is similar to the pain of a sting. The example 'عيني راهي تنقر فيا' (Lit. My eye is tingling me) describes the feeling of pain resulting from an eye infection as a creeping insect moving inside the person's eye. The sensation of an eye infection as a tingling, almost as if tiny insects are moving across the surface of the eye. This metaphor shows the degree of discomfort caused by the painful infection of the sensitive organ. The example 'حبة تمشي معاك كيما' (Lit. Something is walking with you as if the ants are eating you) pictures the feeling of a skin allergy using the image of an ant that is crawling and biting the skin. This depiction shows the pervasive itchiness that is caused by skin allergies.

The PAIN AS A CREEPING INSECT metaphor conveys the nature of the pain being unbearable by representing it as the sting of a creeping insect. This shows how language is shaped by the everyday experiences of speakers and how they reflect on their interaction with animals to conceptualise their feelings, including the pain feeling. This kind of representation is also effective in showing how the reaction of the body to such insects brings irritation and discomfort to the experience. Such metaphors not only describe the feelings but also reflect how they communicate the severity of the pain to others, making their feelings more accessible to others.

5.7 Burden metaphor

Pain is often conceptualised as a sensation induced by an external agent, which, in some metaphoric interpretations, might be likened to a burden. As Peters (2004, p. 198) posited, pain can be perceived through various metaphors: 'pain as an enemy,' 'pain as a weapon,' 'pain as a burden,' or 'pain as an irate individual'. In such representations, pain is visualised as a weighty presence or as exerting pressure on a particular organ. Findings indicate that Algerians predominantly employ these metaphoric constructs to characterise symptoms such as shortness of breath and fatigue.

The metaphorical expression of pain as a burden speaks to its physical and emotional effects. Such metaphors broach the sensation of pain and explain the added suffering, helplessness, and overflow of discomfort. The data from Algerian Arabic include examples of how pain is likened to a burden. For example, 'راها حاجة ضاغطة عليا' (Lit. Something is pressing on me) makes it

vivid—the pressing sensation of being physically pushed by an unseen weight over the body. This metaphor grasps the stifling, suffocating quality of pain—very strongly associated with mental or emotional distress but definitely a major element in physical discomfort. It describes pain in a way that does not imply an experience but as an outside force pressing down and restricting the freedom of the body's action and movement by this person. As in 'كي شغل حجرة وحطوها لي فوق صدري' the metaphor uses the placement of a stone over the chest to describe a type of intense crushing pain. This metaphor served to connote not only how heavy the pain is but also its unyielding, solid nature. That stone is an object which one cannot easily remove, escaping from how pain may dominate one's physical state, leaving the sufferer trapped and powerless. 'بقي' literally means something stayed on my chest and, in that line, it indicates the persistence of pain—how it will not go away but settles and remains settled on one's chest. Hence, the metaphor extends to a situation where the sufferer is constantly in ongoing pain, likely implying some sort of chronic, relentless dimension that the pain takes on this person's life and well-being. 'حجرة فوق صدري' speaks directly to how the pain may feel: as if it is a heavyweight. This simple but vivid image conveys a kind of static burden, heavy enough to affect one's breathing and movement whilst fastened to one's body, immobilising one's activity or focus from anywhere at all.

The crucial point to this argument is that the PAIN AS A BURDEN metaphor is extremely powerful because it brings the abstract and unseen pain to something concrete and universally understood. The weight of such burdens implies pain not only by the physical exertion that bearing burdens involves but also by the emotional and psychological exertion involved in the experience of pain. The pain, like a heavy physical weight, demands attention, disturbs ordinary activity, and has power that goes on without intermission, is shown in the necessary effort, mental and physical, required to sustain its burden. Such metaphors reflect subjective experience, specifically for pain. Those metaphors associated with an experience of suffering accentuate urgency and call for empathy.

5.8 Swing metaphors

The obtained results show that the participants use SWING metaphors when they feel dizzy and lose balance.

The data also included responses that use the metaphor of a swing, likening the pain to a swing that causes imbalance. The PAIN AS A SWING metaphor seems to be very potent in conveying the experiences caused by dizziness and unsteadiness. It is potent because it captures how such sensations are disorienting and fluctuating, employing the imagery of swinging or rotational movement to share with sufferers how those in distress perceive their environment or their own bodies. What describes it best, in the most intense way, is 'ندور الدنيا بيا': a feeling that the whole world turns around one person. The image is very physical, though at the same time, it is also psychological or perceptual—and the pain has just disrupted the base of their perception, on which the whole world is turning. It portrays a loss of control and extreme dizziness, where it does seem like the base of one's perception—the ground—is spiralling out of control. The

very powerful image in 'الدار تدور بيا' conjures the idea of one's immediate surroundings—the house—turning around. This localisation of disease through metaphor to a familiar place, the house, could perhaps suggest how even a safe, familiar environment can become a place of confusion and disorientation. It illustrates how the dizziness thoroughly invades the patient's space, making the home comfort appear shaky. 'الارض راهي تلعب بيا' personifies the earth as an agent who plays. This metaphor suggests erraticism and unwillingness to move, much in the way of a plaything at the hands of a much bigger force. 'الارض تدور بيا' (Lit. The earth is turning around) directly exemplifies the sensation of dizziness as feeling that the ground itself—the most basic element of physical stability—is rotating. Such a metaphor powerfully conveys that feeling with the base of all guidelines for physical orientation no longer in place, increasing the seriousness and impact of dizziness on someone.

The PAIN AS A SWING metaphor is powerful in expressing the very destabilising experience of dizziness and unsteadiness. The metaphors still retain a linkage to the experience: a well-known but changed movement, like the world spinning, a house turning, or the playful, unpredictable motions of the earth. Certainly, these metaphors bear the driving force of movement and of the movement in symptoms, which concerns the anthropological fact of the involuntary and uncontrollable character of the experience. The metaphor also serves as a bridge to empathy so others can get some sense of the intensity and dislocation of the experience. They provide linguistic tools for sufferers to communicate their experiences and for listeners to understand and perhaps respond to the predicaments involved in such pain.

5.9 Physical force metaphors

Another significant metaphor prevalent amongst Algerians is the notion of pain as a 'PHYSICAL FORCE'. Al-Abdullah (2019) termed this as 'PAIN IS A DESTRUCTIVE PHYSICAL FORCE'. Through this metaphor, pain is perceived as an outcome of a force possessing the ability to shatter, crush, fragment, or exert pressure. Notably, this metaphorical representation is employed to characterise symptoms such as general fatigue, backaches, and stomachaches.

The study also found that the responses conceptualise PAIN AS A PHYSICAL FORCE to describe pain and convey information not only about the strength of the experience but also about its perceived impact on one's body. This metaphor underlines pain as a powerful, almost destructive strength that can cause changes in the physical state of a person. It is this kind of relatable expression that gets the intensity and specific nature of the pain across so that it can be more easily comprehended by others trying to relate or empathise with what the sufferer is going through. The example 'مدققة راني' very clearly describes the sensation of being squashed or flattened under the physical weight of pain. This moves the metaphor to describe that there lies heavy pressure stopping at nothing but squashing the body in a literal sense. It first actually gives the understanding of the overpowering effect of this pain—how a person can feel crushed or oppressed by the extent of what he or she is facing. This image portrays very well the exhausting effect of severe pain. The example 'ظهري تقسم على زوج' uses the image of splitting the back physically into two parts to express powerful

pain in the back. This metaphor uses a sharp, violent force by which the body has been taken to pieces. With such an expression as 'broken into two parts' with this kind of pain, the serious and acute case is clearly expressed, with much emphasis on its ability to destroy the normal physical integrity and operation. The example, 'راني مقرضة', is all the same—a further indication of how this disintegration of the body, which one feels through pain, is really disrupting. This enlarges the concept of physical disintegration to the general fragmentation of the self as though the pain were great enough to seem like the whole body was coming apart, tearing into pieces. The example 'ظهري راه مقسوم بالوجع' (Lit. My back is broken because of pain) highlights the cause-effect relationship, using a metaphor of the back to be literally broken by pain. Yet, this phrase not only demonstrates the excruciating nature of the pain but also its direct influence on the integrity of the back's structure.

The PAIN AS A PHYSICAL FORCE metaphor expresses our learned understanding of pain: that it is an invader which works on the body in a manner akin to actual physical destruction. Metaphors which describe pain as breaking, crushing, or fragmenting are metaphors of violence and irreversibility, which are images and reflections of great disability and the psychosocial devastation of severe pain. However, such metaphors are not purely descriptive: they perform an important critical function in communication by bridging the gap between personal experience and outer comprehension. These metaphors could bring with them even further negative implications in terms of pain coping for the sufferers themselves: thinking about the pain in terms of a force of physical destruction could make them more inclined to seek aggressive forms of intervention or to describe their experiences in such terms that they might provoke an emotionally involved and high-empathetic reaction from caregivers and health professionals.

6 Conclusion

The primary objective of this study is to delve into the varied conceptualizations of physical pain amongst Algerians. To facilitate this exploration, we have anchored our analysis in the conceptual theory propounded by Kövecses (2005). Preliminary findings intimate that Algerians predominantly harbour negative perceptions of pain, employing a plethora of metaphors to articulate their adverse experiences with pain and malaise. Scrutiny of these metaphorical constructs underscores nine principal conceptual metaphors utilised by the Algerians. Firstly, there are the 'EVALUATIVE' metaphors which encompass conceptualizations such as 'PAIN IS DOWN', 'PAIN IS HEAVY', and 'PAIN IS DARK'. These metaphors inherently carry negative connotations, as evidenced by terms like 'down' and 'dark'. Next, we have the 'FIRE' metaphors, exemplified by descriptors such as 'burning', 'boiling', and 'grilling'. These, along with the 'SHARP OBJECT' metaphors, can be subsumed under the broader category of 'CAUSE' metaphors. Additionally, our findings highlight force-dynamic conceptual metaphors. The 'CONTAINER' metaphor conceptualises the body or an organ as a vessel potentially on the brink of rupture or one that houses some perturbing entity. The 'ANIMAL' metaphor portrays pain as a ferocious beast preying upon an individual. The 'CREEPING INSECT' metaphor likens pain to an insect infiltrating the body, inducing discomfort. There's also the 'BURDEN' metaphor where pain is perceived as a weighty entity exerting pressure, and the 'SWING' metaphor which envisions pain as arising from a world in tumultuous

motion. Lastly, the 'PHYSICAL FORCE' metaphor conceives pain as a byproduct of a devastating force culminating in overarching debilitation.

In applying these findings pragmatically, the insights gleaned may facilitate individuals in articulating their pain experiences more effectively and equip medical practitioners with a more nuanced understanding of their patients' descriptors. However, this study is not devoid of limitations. A salient point is that all respondents are university-affiliated, potentially offering a perspective on pain that diverges from that of the illiterate demographic. Moreover, the paper does not broach the subject of pain perception in other Arabic nations. Such avenues merit exploration in subsequent research endeavours. In conclusion, the author advocates for more in-depth studies on the metaphorical lexicon used by other Arab communities to delineate their pain experiences and also suggests probing into the metaphoric expressions encapsulating both physical and emotional pain.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

GR: Conceptualization, Investigation, Resources, Writing – original draft, Methodology, Project administration, Supervision, Validation, Visualization, Writing – review & editing. KN: Conceptualization, Investigation, Methodology, Resources, Validation, Visualization, Writing – original draft, Data curation. SA: Conceptualization, Investigation, Methodology, Project administration, Resources, Visualization, Writing – original draft, Validation. NA: Conceptualization, Investigation, Methodology, Project administration, Resources, Visualization, Writing – original draft, Data curation. MR: Conceptualization, Investigation, Resources, Writing – original draft.

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