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### Please complete the following details:

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**Please continue your coursework on the next page**

# Conceptual Metaphors of Anxiety

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## Abstract

The subject of illness is difficult for people to navigate and communicate. Researchers have been interested in the ways in which conceptual metaphors are used by speakers to understand how illnesses are experienced for over 40 years (Lakoff and Johnson, 1980). Conceptual metaphors provide a window into the illness experience because they enable speakers to talk about abstract or complicated topics by describing them in terms of something concrete (Castaño, 2019). Studies have shown that societal, institutional, and individual conceptualisations of illnesses can vary, and these differences have implications for how illness is treated, communicated, and managed by the people suffering from them and by healthcare professionals (Semino, 2015; Atanasova, 2018). Recently, studies have begun to research conceptual metaphors of mental illnesses, but anxiety is underrepresented in the literature. This study identifies the conceptual metaphors of anxiety by using a mixed method analysis to examine the corpora of two groups, online news media, and first-person accounts in blogs and forum posts. These groups were chosen to identify any differences between societal and individual conceptualisations of anxiety. Any implications for patient healthcare were also considered throughout. 18 conceptual metaphors were observed, many of which differ from previous findings and demonstrate distinct aspects of anxiety when compared with comorbid illnesses such as depression. The media and first-person corpora displayed a near-identical preference for Escalation/Loss of Control conceptual metaphor categories, but showed differences in Containment/Constraint, Collapse, and Suffocation metaphors. Minor implications for healthcare were observed in Collapse and Suffocation metaphors. These results build on the current knowledge of how metaphors are used to conceptualise mental illness and provide a foundation for which anxiety can be studied in this field. They demonstrate that experiences of anxiety vary greatly from person to person and highlight disparities between societal and individual understanding of the illness.

## Introduction

Metaphors are a universal linguistic mechanism used by people to understand and communicate about themselves and the world around them. Metaphors are also used to frame situations, topics, and events, allowing people to shape the ways in which these are perceived (Castaño, 2019). Studies suggest that metaphors highlight specific aspects of a situation while downplaying others (Lakoff and Johnson, 1980; Charteris-Black, 2012; Castaño, 2019), and therefore, metaphors ‘emphasise the specific aspects of a topic which a speaker considers most important’ (Castaño, 2019, p.116). Research since the 1980s has broadly shown that conceptual metaphors can provide a valuable insight into how people conceptualise complex and taboo experiences societally and as individuals (Lakoff and Johnson, 1980).

The term conceptual metaphor (CM) describes the cognitive process of mapping an abstract domain of experience (the target domain) to something concrete or familiar (the source domain). Conceptual metaphor analysis (CMA) is the methodological approach of identifying metaphors and mapping the target domain to the source domain (Lakoff and Johnson, 1980). The subject of illness is ideal for CMA because the abstract, sensitive, and taboo nature of many illnesses leads to varied and subjective experiences that people struggle to understand and communicate, resulting in high frequencies of metaphors during speech (Kirmayer, 1992; Gibbs, 2020).

CMA has been used to research many illnesses (detailed discussion to follow in the literature review), but only recently has attention been paid to mental illnesses. To the best of my knowledge, this is the first CMA study relating to anxiety, demonstrating how underrepresented it is in the current literature. There are many misconceptions surrounding anxiety as an illness because it is often mistaken for the emotion, which is distinct from clinical classifications of anxiety such as GAD (generalised anxiety disorder) and PD (panic disorder). Forms of anxiety such as GAD are typically diagnosed when excessive emotional anxiety

occurs for at least six months and causes clinically significant distress to important areas of functioning (DSM-5, 2013). Additionally, ‘comorbidity between anxiety disorders and depression is very common’ (Woodgate, 2021, p.1), perhaps contributing to societal misconceptions between the two illnesses. Research into anxiety is especially poignant in the context of the current global pandemic COVID-19. A meta-analysis of 43 studies estimated an overall prevalence of anxiety of 25% during the pandemic, around 3 times higher than the previously estimated global prevalence of anxiety disorders (Santabárbara et al., 2021).

In the present study I conduct a CMA of the metaphors used by two groups to conceptualise anxiety. The groups are first-person accounts found online in blogs and forums, and media representations found in online articles. I create two corpora, one for each group, then compare the corpora to demonstrate whether there is a disparity between the way anxiety is understood at an individual and societal level. The media group represents current societal beliefs, whereas the first-person accounts represent individual experiences. Atanasova (2018) demonstrated that online spaces frame obesity differently from mainstream health narratives. I predict that this could also be true for misunderstood illnesses such as anxiety.

Seale et al. (2010), Kotliar (2016), and Coll-Florit et al. (2021) argue that online spaces such as blogs and forums enable people to express more accurate depictions of mental illness than can be achieved in research conditions due to their accessibility and anonymity. For this reason, data collected in online forums and blogs should provide a rich resource of metaphors related to anxiety. While the media represents collective societal values, it is also important to note that news media is incentivised by the need for a human-interest factor to serve as news hooks (Washer, 2004; 2006), which may result in sensationalised and hyperbolised selections of metaphors.

If a disparity between the corpora exists, this will be evaluated for any implications of how anxiety is recognised or treated, societally and in the medical field. The consensus among contemporary researchers when studying illness is to proceed with sensitivity and consider any potential implications for healthcare even if these implications are minor (Charteris-Black, 2012; Atanasova, 2018; Beck, 2020).

Lakoff and Johnson (1980, p.156) go as far as to state that 'metaphor may be a guide for future action'. Contemporary research has demonstrated that the types of metaphors used to conceptualise criminals had different outcomes for whether people desired rehabilitative or punitive solutions for city crime (Thibodeau and Boroditsky, 2011). Another study concluded that describing 'the flu metaphorically increased individual's willingness to get vaccinated' (Scherer, 2014, p.44). These studies demonstrate that research of metaphors can have real-world implications and justifies the present study's consideration of any consequences to healthcare.

The research questions (RQs) this dissertation study aims to answer are as follows:

RQ1: How are metaphors used to conceptualise anxiety?

RQ2: How do first-person accounts differ from the media in the use of conceptual metaphors of anxiety?

RQ3: Do these results have any implications for patient healthcare, or healthcare professionals and their support for patient recovery?

## Literature Review

There is some contention surrounding the usefulness of CMA and any implications the results might have. One argument is that they reflect societal values and allow communities to understand and share experiences of illness (Sontag, 1978). Others (Demjen, 2016) think that they are an indicator of how well individuals cope with illness. Research has shown that there are differences in how individuals, groups and institutions use metaphors to conceptualise illness, and these differences highlight disparities between what is helpful for the people suffering from illness, and what we collectively assume is helpful for those people (Semino et al., 2015; Atanasova, 2018, Cotter et al., 2021). Contemporary research is also concerned with whether conceptual metaphors have any relevance for healthcare professionals and their communication with patients (Charteris-Black, 2012; Scherer, 2014, Semino et al. 2015; Beck, 2020; Gibbs, 2020)

The following research demonstrates the broad range of illnesses studied under the lens of CMA. I outline the context and influences of the current research, including my own, assess the methodologies, results, and gaps in this field, and attempt to identify reasonable expectations for the results.

### *History of CMA*

Some of the first major research into CMs was spearheaded by Lakoff and Johnson (1980) in their seminal book *Metaphors We Live By*. Lakoff and Johnson (1980, p.244) argue that CMs allow ‘inferences in sensory-motor domains (e.g., of space and objects) to be used to draw inferences about other domains (e.g., of subjective judgment)’. In other words, metaphors allow people to understand one thing in terms of another. Lakoff and Johnson’s (1980, p.6) claim is that ‘the processes for human thought are largely metaphorical’, therefore the metaphors that people use provide a great deal of insight into how they conceptualise their lives. This interpretation of metaphor is useful for understanding how people experience various illnesses.

It suggests that the metaphors people use to describe their experience of illness can be used to make assumptions about how they conceptualise it.

This idea was explored thoroughly in Sontag's (1978) book *Illness as Metaphor*. Sontag describes the metaphors used to conceptualise cancer as 'morally impermissible', as they imply the necessity for a 'rousing call to fight by whatever means necessary' (1978, p.87). Sontag (1978) argues that cancer metaphors are unhelpful for patients because they are charged with 'fantasy of inescapable fatality' and reflect western society's shallow attitude towards death, and 'anxieties about feeling' (1978, p.87). Subsequent researchers have taken similar stances regarding the detrimental effect certain categories of metaphor can have on a person's ability to cope with illness (Atanasova, 2018; Hendrix, 2018; Gibbs, 2020), but as we will see, others claim that metaphors can provide people with beneficial and comforting conceptualisations of illness (Semino et al. 2015).

### ***Popularisation of CMA***

The observations by Sontag (1978), and CMA by Lakoff and Johnson (1980) are cited as inspiration behind much of the contemporary research on CMs and illness. Kirmayer (1992), Weis (1997), Hendrix et al. (2018), and Gibbs (2020) agree that the most popular approach for examining metaphorical thinking in discourse surrounding coping with illness is conceptual metaphor theory (CMT), spearheaded by Lakoff and Johnson (1980). Gibbs (2020, p.2) states that 'conceptual metaphors allow people to think concretely about abstract entities and experiences' (such as illness) and 'motivate the specific ways people speak about their lives and the world around them'.

Weis (1997, p.472) argues that the ways in which patients use metaphors for AIDS and cancer demonstrate how they 'conceptualise their illness' and increase awareness of their 'mindful body'. Gibbs (2020) emphasises the utility of CMA by illustrating how metaphors shape

understanding of illness and healing experiences. He states that metaphors are frequently seen in individual's descriptions of their illness and healing experiences. They can reveal what it is like to be ill or healing, and 'create a shared understanding of subjective experience' (Gibbs, 2020, p.6). These papers illustrate how the field of CMA has grown, yet still relies heavily on theories from the 1980's. They demonstrate why examining metaphors is useful for understanding how people conceptualise and cope with illness, and also provide justification for ascertaining which metaphors might be beneficial or detrimental to their recovery.

### *Metaphors of other illnesses*

Current research has expanded to account for metaphor use in a much broader range of illnesses, including but not limited to hypertension (Schuster et al., 2011) and obesity (Atanasova, 2018; Cotter, 2021), pandemics such as SARS, mad cow disease (Washer, 2004; 2006), avian influenza (Nerlich, 2017), and COVID-19 (Leo & David, 2020; Adam, 2021; Stanley et al., 2021), mental illnesses such as depression (Coll-Florit et al., 2021; Beck, 2020) and post-traumatic stress disorder (PTSD) (Beck, 2016; Foley 2015), and even 'good and bad' deaths (Demjen, 2016). This demonstrates the breadth of research in this field and consensus surrounding the usefulness of using metaphors as a gateway for understanding the experience of illness.

Many of the above studies employ methodologies appropriate for conducting CMA, such as the use of corpus linguistic analysis, which has loosely provided a template for my research. They highlight contrasts between personal and societal use of metaphors and emphasise the importance of research which is not limited to W.E.I.R.D (western, educated, industrialised, rich, and democratic) participants. There is however disagreement over whether the results having implications for healthcare professionals, and broad differences in aims. For example, interest in social meaning and pragmatics (Cotter, 2021), reporting (Washer, 2006; Leo & David, 2020), interplay between scientists and media (Nerlich, 2017), blogs and the media



(Atanasova, 2018), World Health Organisation briefings (Adam, 2021), collective trauma (Stanley et al. 2021), first person accounts in blogs (Coll-Florit et al., 2021), healthcare (Beck, 2020; Schuster et al. 2011), and insight into illness (Beck, 2016; Foley 2015). The variety of aims and research questions is useful for identifying which methodologies are most appropriate for which questions, but perhaps also casts doubt over the validity of some of the findings, because many of the studies have not yet been thoroughly replicated.

### ***Implications for healthcare***

There is debate in the literature over whether the results have any implications for healthcare professionals and patient care. If results display a significant preference amongst individuals for a specific category of CM, or a disdain for another, it might be reasonable to expect healthcare professionals to adopt specific metaphors in the interest of helping patients conceptualise their illness in a manner which improves wellbeing.

Semino et al. (2015) found that patients with cancer use Violence and Journey metaphors at the same rate, suggesting a blanket ban on the use of Violence metaphors would be detrimental to patient wellbeing. Atanasova (2018, p.1) claims that ‘across blogs, Journey metaphors were used to highlight aspects of obesity in ways that challenged mainstream weight loss narratives’, suggesting a divide between the ways in which people conceptualise illness constructively for themselves, and the societal expectations placed on those people. Hendrix (2018, p.267) argues that a person framing their experience coping with cancer as a ‘battle’ correlates with feeling guilty for failing to recover, while framing cancer as a ‘journey’ encourages people to ‘make peace’ with their situation. As these studies demonstrate on a small scale, it could be that either the influences of CMA on healthcare professionals is small, non-existent, or differs from illness to illness.

### *Metaphors of mental illness*

Studies have started to look at how metaphor is used to conceptualise mental illness. Coll-Florit et al. (2021) analysed the CMs of depression in a corpus of 23 Catalan blogs. They found that metaphors used in previous studies were used in a new genre and new language, suggesting some level of universality and ‘conceptual (non-language dependant) relevance’ of metaphors (2021, p.14). They also found that metaphors for depression have target domains related to ‘communication, social context or medicine’ (2021, p.14), which emphasises the importance of contextual or peripheral aspects of experiencing mental illnesses, which often carry significant social stigma.

Beck (2020) examined the metaphors used by women to describe experiences of postpartum depression. Beck (2020, p.7) claims that their findings have implications for psychiatric nursing practices, and educational materials which may help women and families ‘identify symptoms and seek early treatment or intervention’. Beck (2020) does note that the findings from this study represent a very narrow subsection of majority white, married, middle-class women, and so the broad discussion surrounding implications for medical practices remains inconclusive until results become generalisable.

Foley (2015) and Beck (2016) studied metaphor use by people suffering from PTSD. They conclude that healthcare professionals, be it therapists or nurses respectively, could benefit from the insight acquired from CMA of the PTSD experience. Beck (2016, p. 82) claims that metaphors provide a ‘rich insight into the daily issues [of PTSD] that is not captured by medical jargon’, and therefore allowed the women studied to articulate their experience using language that made sense to them. Additionally, Foley (2015, p. 144) concludes ‘a significant degree of cultural accommodation can be achieved’ when veterans describe PTSD through metaphor in therapy, and stresses that metaphors are important for ‘meeting a person on their own terms to explore a conceptual source’. Foley (2015) and Beck (2016) suggest that CMs act as a gateway

for healthcare professionals to understand the experience of PTSD, which may assist them in providing appropriate support to those suffering it, and Foley (2015, p.145) even suggests that ‘veteran-elicited metaphor in PTSD therapy can alleviate PTSD symptoms’.

Seemingly, researchers are yet to comprehensively study anxiety through the lens of CMA. Woodgate (2021) researched the youth experience of anxiety through metaphor, concluding that metaphors are widely used amongst white female adolescents to describe anxiety, and attention to these metaphors may have implications for therapeutic treatments. Laguille-Villafuer (2012) analysed the metaphors used by Filipino older adults to understand family support during death anxiety. Their study is more concerned with gerontology (the study of ageing) than linguistics, but mirrors research conducted by Demjen (2016) into the metaphors of good and bad deaths from the perspectives of doctors. Both concluded that metaphors are a useful indicator for healthcare professionals to understand the experience of illness, anxiety and death in a way that may help inform their practice and treatment.

These studies represent disparate aspects of anxiety but do not attempt to capture anxiety as it is broadly experienced by a varied population. They do not compare first-person experiences to institutional or media representations as seen in the Atanasova (2018) and Semino et al. (2015) studies, nor do they use methodologies following the framework of CMA. I hope that by employing a CMA methodology and by making comparisons between in-group and out-group use of metaphor, any differences will be valid, easily identifiable, and reveal potential consequences for healthcare professionals and treatment.

### ***Summary***

The research above demonstrates a consistent trend in language and health communication to identify the metaphors people use to conceptualise many varieties of illnesses. Research

currently underrepresents anxiety, leading to RQ1: How are metaphors used to conceptualise anxiety?

The two main methodologies that have inspired my research are those involving corpus linguistics, and discourse analysis of the CMs within the corpora collected, otherwise known as CMA. This research is heavily inspired by the studies which made comparisons between first-person and institutional or media perspectives. There are clear conceptual differences between these groups for illnesses such as obesity (Atanasova, 2018) and cancer (Semino et al., 2015), suggesting that the way we view illness societally does not always reflect how we feel individually about illness, and that the societal view can have negative consequences on the individual's experience. This inspired RQ2: How do first-person accounts differ from the media in the use of conceptual metaphors of anxiety?

While there is debate over the healthcare implications of such research, it is an important question to ask when dealing with sensitive subject matter such as mental illness, which our understanding of is ever evolving. The focus on healthcare in the previous research led to RQ3: Do these results have any implications for patient healthcare, or healthcare professionals and their support for patient recovery?

## Methodology

In this section I outline the methods used for the creation of the corpora, the methods for identifying, analysing, and categorising CMs, and for comparing them with one another. I also discuss some of the ethical considerations of this research.

For this study I use a mixed methods approach. It is largely qualitative because my RQs are primarily concerned with how metaphors are used and the consequences of any differences between the two groups. Quantitative analyses are also used to examine any differences

between the groups, and to conclude whether statistical significance exists among the differences in metaphor use.

*Corpus / sample:*

I manually created two corpora. The first was the Media corpus, made up of online mainstream media articles from English speaking western countries, primarily but not restricted to the UK. This corpus reflects the current societal conceptualisations and understanding of anxiety. The second was the First-person corpus, made up of first-person accounts collected from online forums and blog posts. This corpus was designed to contrast the societal conceptualisations with those of individuals. Forums and blogs are accessible worldwide so there was little incentive to deliberately restrict the media corpus to UK outlets only. A caveat to using publicly accessible online data is that it is not possible to control for a fully randomised or generalisable sample because participant data is unavailable due to the anonymity of online accounts.

The media corpus was designed to be politically bipartisan. I used data from some of the largest media outlets in the UK (The Times, The Sun, The Daily Mail, The Guardian) and U.S. (The New York Times, ABC News), but primarily used Google search engine to find articles in the last ten years referencing anxiety in the title or description as a key word in context (KWIC). Articles were selected using the following search terms: *anxiety*; *anxiety experience*; *living with anxiety*. The corpus is therefore made up primarily of articles which provided the most metaphors, as opposed to an even distribution of left leaning and right leaning outlets. I am unaware of any research which suggests that political ideology impacts views of anxiety or metaphor use, so a comparison of these corpora should reliably indicate whether there are differences between societal and personal conceptualisation of anxiety without the need for a stratified or randomised sample.

The two major forums for the First-person corpus were Mumsnet (a UK based forum) and Reddit (a U.S. based forum), which were used for 96% of the first-person corpus. Mumsnet has a core demographic of UK mothers (97%) primarily aged 31-40 years (61%) (Pederson and Smithson, 2013), whereas Reddit has a slightly more varied core demographic of US (49%) males (63%) according to SimilarWeb (2013), DataReportal and GlobalWebIndex (2021). These statistics do not suggest that UK mums and U.S. males are the core demographic who choose to post online about their experiences with anxiety, but limited public information is available for the demographics that do. They instead provide some insight into the difficulty creating a randomised sample for this corpus, which is restricted to what is available and popular online. The focus on forums is due to their design which promotes interactivity and sharing of experiences, and research has found evidence of ‘considerable self-disclosure around mental health issues’ (Choudhury, 2014). Mumsnet posts were found using the same search terms in the Media corpus, but Reddit posts were found by searching through the subreddit (sub-forum / online community) *r/anxiety* which was restricted to posts about experiences of anxiety.

Both corpora use data collected exclusively from the past decade, the majority of which is from 2021. This is so that the results reflect contemporary use of metaphor, and therefore any potential implications for healthcare professionals are relevant today. Some of the media corpus includes interviews taken from first-hand experiences of anxiety, somewhat blurring the lines between the two corpora. This data is still distinct from first-person experiences because the language published by the media publications is selected by them. This distinction creates potential for disparity between the types of metaphors we see used in the media and those used by individuals in online communities.

### ***Methods:***

Metaphors were initially identified in the corpora by looking for non-literal language that

cooccurs with or is in the context of anxiety. Metaphors were then confirmed using the Metaphor Identification Procedure (MIP) popularised by Pragglejaz Group (2007, p.3), and used frequently in modern CMA studies (Demjen et al., 2016; Beck, 2020; Cotter et al., 2021).

This involves:

1. Reading the entire text-discourse to establish a general understanding of meaning.
2. Determining the lexical units in the text-discourse.
3. Establishing each lexical unit's meaning in context, its basic contemporary meaning in other contexts, then deciding whether these meanings contrast but can be understood in comparison.
4. If yes, the lexical unit is metaphorical, otherwise the unit is discarded.

An alternative approach for identification is Charteris-Black's (2004) 3-step critical metaphor analysis: identification, interpretation, and explanation. This method is also used by Atanasova (2018), but I chose to use MIP because it is more popularly used and modern (Semino et al. 2015; Beck, 2020; Coll-Florit, 2021).

Discourse analysis, specifically CMA (Lakoff and Johnson, 1980; Coll-Florit et al., 2021) assisted the analysis and categorisation of metaphors in the corpora. Example (1) and (2) display how CMA was applied to text in the corpora:

(1) "I had never considered the possibility," Bryant said. **His anxiety was a dense fog.**

Example (1) displays an extract of language data with the highlighted sentence containing a metaphor. CMT describes a process of mapping two domains in a metaphor to create a conceptual metaphor. The source domain is typically concrete, in this instance a 'dense fog',





In comparison, Woodgate's (2021) study on youth's metaphors of anxiety had a much narrower selection of CM categories:

- (3) **The lived space:** darkness, drowning, stuck, trapped
- (4) **The lived body:** darkness, sinking,
- (5) **Lived time:** stuck, living in the past
- (6) **Lived relations:** trapped
- (7) **Lived meaning:** a monster, creep

The colour coding in examples (3) through (7) showcases how many metaphors intersect with multiple categories, rendering the categories ineffective. Some overlap is to be expected because multiple interpretations of a given metaphor are possible, but Woodgate (2021) appears to categorise too narrowly in comparison with Coll-Florit et al. (2021). I decided to use a broad selection of categories to increase the precision of the results, so that comparisons between the corpora are easily identifiable. In the results I will refer to the number of metaphors that overlapped categories. The categorisation process was as follows:

1. CMs were allotted into categories based on source domains.
2. CMs that fit into multiple categories were counted as two metaphors.
3. All CMs are checked twice for the correct category to ensure accuracy and consistency.

The sum of metaphors from each category in each corpus was calculated. Then the corpora were compared for asymmetries in the distribution of metaphors using a Chi-square test of significance, so that conclusions could be made on whether either corpus displayed a particular

preference for conceptualising anxiety. Finally, the results were assessed for any consequences on healthcare, treatment, or approaches to care.

Chi-square tests were calculated in excel using categorical variables. The independent variables (IV) were the groups or corpora from which the metaphors were observed. The dependent variables (DV) were the occurrence or absence of a specific category of metaphor. First, observed values were put into a table. Then the expected values were calculated by ((row total x column total) / grand total). The Chi-square statistic for each cell was calculated using the following formula:

$$\sum \frac{(\text{Observed} - \text{Expected})^2}{\text{Expected}}$$

The sum of the Chi-square statistics was then calculated. The degree of freedom was 1 for each test. Finally, the p-value was determined using table 2 below:

df	0.995	0.99	0.975	0.95	0.90	0.10	0.05	0.025	0.01	0.005
1	---	---	0.001	0.004	0.016	2.706	3.841	5.024	6.635	7.879

Table 2 – Table of critical values to calculate p-value

A p-value of 0.05 or lower was considered statistically significant. Tables of each Chi-square test calculation for this study are available in the appendix.

### ***Ethics***

There are clear sensitivities and ethical considerations regarding the identification of people who are suffering from or sharing experiences of any illness. All data from first-person participants is already anonymised due to how forums function, and while articles and blogs are in the public domain, none of the participants from either corpus are named or identified.

## Results

### *Quantitative Results*

I identified a total of 218 metaphors from the Media and First-person corpora, across 38 online articles and 32 forum / blog posts. Six metaphors overlapped categories and were counted twice, meaning a total of 224 metaphors were counted. For comparison, Atanasova (2018) researched a total of 115 metaphors in obesity related posts across personal and professional blogs. Beck (2020) identified 11 separate CMs related to postpartum depression in a corpus of interviews spanning 300 pages. Coll-Florit et al. (2021) identified 302 metaphors in their corpus in their study of 23 blogs. The research questions in this paper are not concerned with metaphor frequency within each corpus, I am instead interested in which category of CM is used when a CM is used at all.

Table 3 and Table 4 display the total identified CM categories for the media and first-person corpora, as well as the distribution of CM category occurrences within each corpus by number and percentage of the total. A total of 18 CM categories were identified across the corpora, but not all categories were used by both. For example, table 4 displays zero occurrences of Expectation or Journey metaphor categories.

<b>CM Category</b>	<b>No. Occurrences</b>	<b>% of Total</b>
Burden / nuisance	8	7.34%
Collapse	8	7.34%
Containment / Constraint	19	17.43%
Darkness	2	1.83%
Descent / ascent	1	0.92%
Disorientation / Confusion	9	8.26%
Energy	5	4.59%
Escalation / loss of control	21	19.27%
Evil	3	2.75%
Expectations	2	1.83%
Hunt	1	0.92%
Internal disruption	7	6.42%
Journey	1	0.92%
Lethargy	4	3.67%
Living organism	2	1.83%
Suffocating	1	0.92%
Time	7	6.42%
War	8	7.34%
<b>Totals</b>	<b>109</b>	<b>100%</b>

Table 3 - All CM Categories of anxiety and their distribution by number and % of total in the Media corpus

<b>CM Category</b>	<b>No. Occurrences</b>	<b>% of Total</b>
Burden / nuisance	18	15.60%
Collapse	1	0.87%
Containment / Constraint	7	6.09%
Darkness	4	3.48%
Descent / ascent	5	4.35%
Disorientation / Confusion	11	9.57%
Energy	8	6.96%
Escalation / loss of control	21	18.26%
Evil	7	6.09%
Expectations	0	0.00%
Hunt	3	2.61%
Internal disruption	10	8.70%
Journey	0	0.00%
Lethargy	4	3.48%
Living organism	1	0.87%
Suffocating	7	6.09%
Time	5	4.35%
War	3	2.61%
<b>Totals</b>	<b>115</b>	<b>100%</b>

Table 4 - All CM Categories of anxiety and their distribution by number and % of total in the First-person corpus

Figure 1 and Figure 2 display bar charts of reduced CM categories for the media and first-person corpora respectively. These charts display categories which appeared over 5.55% of the time in at least one of the two corpora. If all 18 categories were evenly distributed, they would appear 5.55% of the time, so CM categories below this number were eliminated from these charts to highlight category preferences in either corpus.

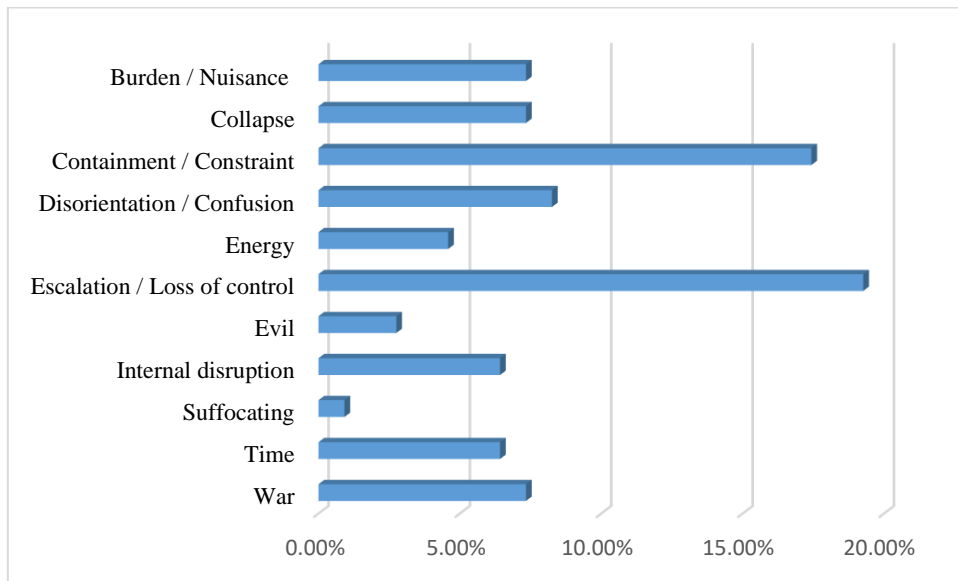


Figure 1 - Reduced CM categories and their distribution as a percentage in the media corpus

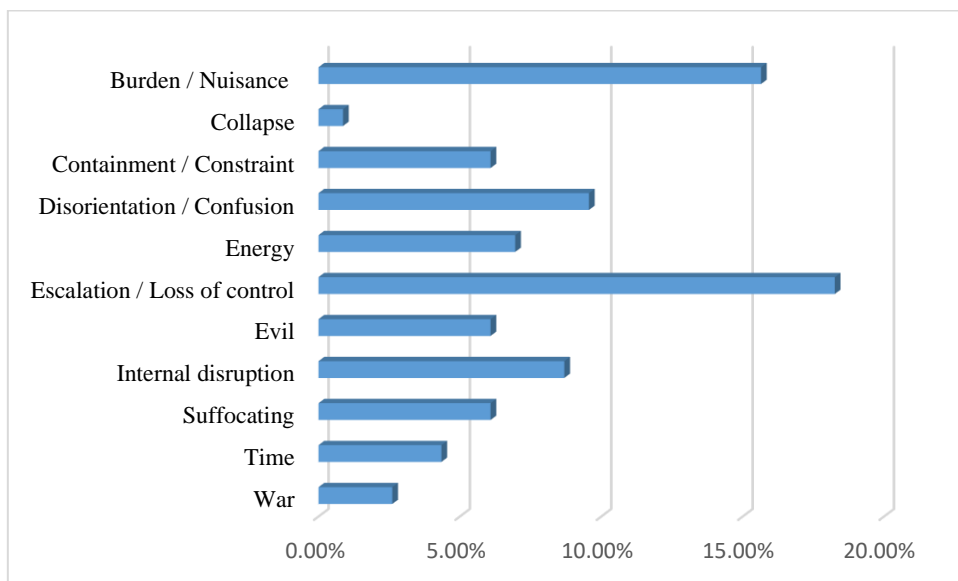


Figure 2 - Reduced CM categories and their distribution as a percentage in the first-person corpus

The most popular CM category in both the media and first-person corpora is Escalation/Loss of Control, reaching 19.27% (21) and 18.26% (21) of the total CMs in each corpus respectively. A Chi-square test of significance found the proportional increase in the media corpus to be statistically insignificant:  $X^2(1, N = 224) = 0.037, p = >0.10$ .

Containment/Constraint CMs were the second most popular in the media corpus, appearing in 17.43% (19) of the total media CMs, whereas they were found in only 6.09% (7) of the total first-person CMs. The difference between the corpora for this lone category is displayed in a bar chart in Figure 3. The Chi-square test resulted in:  $X^2(1, N = 224) = 7.02, p = <0.01$ , therefore the proportional increase in the Media corpus is statistically significant.

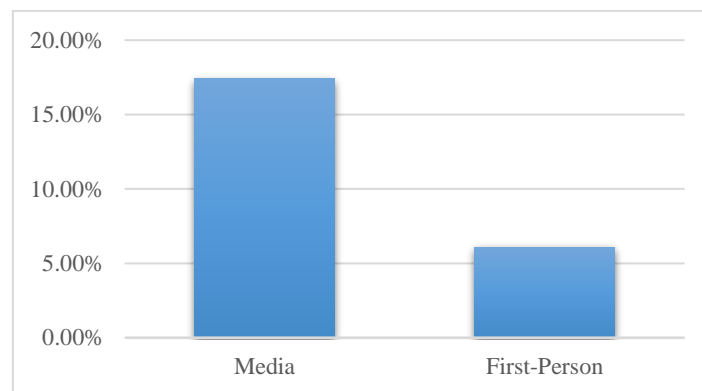


Figure 3 - Proportion of Containment/Constraint CM categories in the Media corpus and First-person corpus

Burden/Nuisance CMs were the second most popular in the First-person corpus, appearing in 15.65% (18) of the total CMs. In the Media corpus, they appeared in 7.34% (8) of the total. The difference between the corpora for this lone category is displayed in Figure 4. The Chi-square test resulted in:  $X^2(1, N = 224) = 3.77, P = >0.05$ . The proportional increase in the First-person corpus is narrowly statistically insignificant.

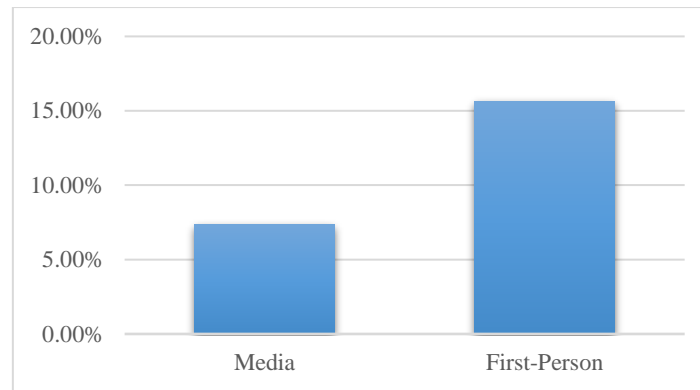


Figure 4 - Proportion of Burden/Nuisance CM categories in the Media corpus and First-person corpus

The largest disparity between corpora is in Collapse CMs. The Media corpus showed a 774% increase in the use of these CMs over the first-person corpus. Collapse CMs were found in 7.34% (8) of the total media CMs, and 0.87% (1) of the total first-person CMs. The difference between the corpora for this lone category is displayed in Figure 5. The Chi-square test of significance resulted in:  $X^2(1, N = 224) = 6.07, p = <0.025$ , therefore the disparity between corpora is statistically significant.

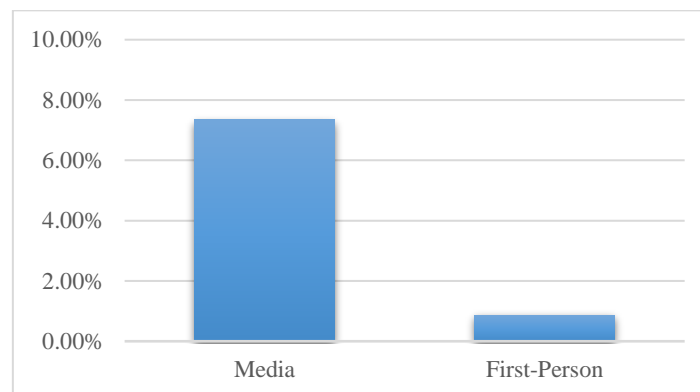


Figure 5 - Proportion of Collapse CM categories in the Media corpus and First-person corpus

The second largest disparity between corpora is in Suffocation CMs. First-person accounts showed a 563% increase in the use of these CMs over the media. Suffocation CMs were found in 0.92% (1) of the total Media CMs, and 6.09% (7) of the total First-person CMs. The difference between the corpora for this lone category is displayed in Figure 6. A Chi-square

test of significance resulted in:  $X^2 (1, N = 224) = 4.34, p = <0.05$ , therefore the proportional increase in the First-person corpus is statistically significant.

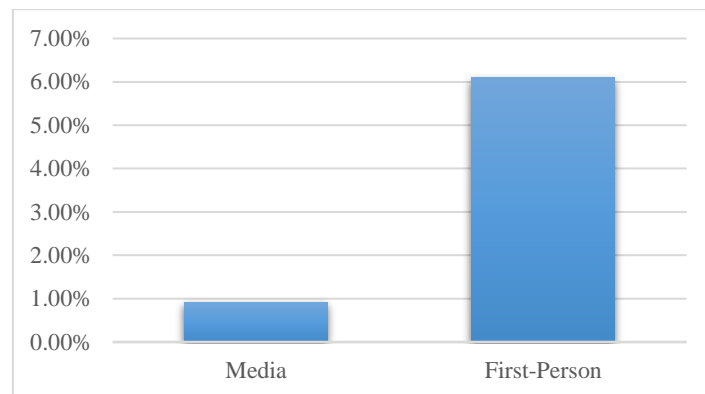


Figure 6 - Proportion of Suffocation CM categories in the Media corpus and First-person corpus

CM categories such as Time, Disorientation/Confusion, Internal Disruption, and Energy were proportionally similar between corpora compared with the categories above. War and Evil CM categories displayed a difference in frequency which appears to be less substantial than the above categories. For this reason, the discussion will focus on the categories represented in Figures 3 through 6.

### *Qualitative results*

Table 5 displays a reduced list of CM categories with their associated metaphors as found in the Media and First-person corpora. The list has been further reduced from Figure 1 and Figure 2 to include only categories which were directly analysed in the quantitative findings. The full list of categories with associated metaphors will be displayed toward the end of the discussion section.



<b>Reduced CM Categories</b>	<b>Associated Metaphors</b>
<b>Burden / Nuisance</b>	Weight; burden; physical entity; pressure; thief; creep; haunted
<b>Collapse</b>	Walls falling in; unstable floor; breaking; tornado
<b>Containment / Constraint</b>	Prison; box; walls falling in; a strong grip; freezing; paralysis; captor; crippling; walking through treacle
<b>Escalation / Loss of Control</b>	Spiral; threat; on the edge; wave of fear; snowballing; spell; near miss; shifting goalpost
<b>Suffocating</b>	Suffocating; can't breathe; throat closing off; couldn't get enough air; drowning

Table 5 – Reduced list of CM category types with associated metaphors

In both the Media and First-person corpora, Escalation/Loss of Control was the largest category. In the Media corpus, Escalation/Loss of Control metaphors primarily conceptualised anxiety using source domains such as ‘a spiral’, ‘a threat’ or being ‘close to an edge’. Similarly, in the First-person corpus, the same category primarily conceptualised anxiety using ‘spiral’ as the source domain. The usage of ‘spiral’ metaphors in both corpora usually referred to feelings of accumulated, continuous, and uncontrollable stresses. Various triggers such as negative thoughts and hangovers had the effect of ‘spiralling’ into anxiety. This description portrays a sudden shift in state from relative normality to experiencing feelings of inevitable negativity and concern.

Containment/Constraint CMs, which were popular in the Media corpus but not the First-person corpus, conceptualised anxiety primarily with source domains such as ‘box’, ‘crippling’, ‘prison’, and ‘freezing’. Containment metaphors such as ‘box’ and ‘prison’ were used to conceptualise anxiety as an external container which blocked normal interaction with the world or immediate environment. They associate the illness with claustrophobia and feelings of inescapability. Constraint metaphors such as ‘crippling’ and ‘freezing’ similarly conceptualise anxiety as preventing normal interaction with the world, but through some physical restriction. The CMs in this category portray the experience of anxiety as having a yearning need for normality which is blocked in some form by the illness.

Collapse CMs, which were greatly favoured in the Media corpus, conceptualised anxiety primarily using source domains such as ‘walls falling in’, ‘breaking’, and ‘unstable floor’. These CMs map anxiety to domains of experience associated with instability and destruction, whether that be feelings of ‘breaking’, which indicated mental and emotional fragility, or experiences of external destruction, framed as the world being unreliable and dangerous.

Suffocation CMs, which were greatly favoured by the First-person corpus, conceptualised anxiety primarily using source domains such as ‘drowning’, ‘suffocating’, and ‘throat closing off’. Metaphors in this category were the most closely related to physical symptoms of illness. These metaphors express a tangible and dramatic sense of panic and impending death. Although previous categories convey unpleasant and detrimental experiences, metaphors of ‘suffocation’ are used to demonstrate the undeniable severity of anxiety. This category intersects with Escalation/Loss of Control because both frame anxiety as something which people sense having no control over but is distinct because suffocation directly refers to feelings of impending death as opposed to a continual and increasing accumulation of stress. Suffocation CMs also intersect with Containment/Constraint because they frame anxiety as something which has viscerally enclosed around them but differ in the extent to which the enclosure is inhibiting them. Finally, an intersection between Suffocation and Burden/Nuisance CMs was observed in metaphors such as ‘weight on my chest’ which imply difficulty breathing. Suffocation is distinct once more, this time due to the direct reference of suffocating as opposed to the implication.

## Discussion

### *Escalation/Loss of Control CMs*

Escalation/Loss of control CMs were the most popular in both corpora, but a narrow and statistically insignificant proportional increase was observed in the Media corpus. The near identical preference for this category of CM by both the media and first-person accounts suggests that anxiety is conceptualised similarly by both groups. Additionally, the preference for ‘spiral’ source domains indicates a consistent experience of anxiety. This type of CM was not identified in the Woodgate (2021) study of youth anxiety, though this is unsurprising given the differences in their methodology (hermeneutic phenomenology) and their focus on ‘lived space, body, time, and relationships’ (Woodgate, 2021, p. 3) as opposed to CMA. Nor were these CMs identified in the Coll-Florit et al. (2021) study of metaphors of depression. Interestingly, this demonstrates one of the ways in which anxiety differentiates itself from depression, despite the two illnesses having strong affiliation and comorbidity with one another (Cummings et al., 2014). Evidently there are no healthcare implications if people societally and individually conceptualise anxiety in the same way. It would suggest that media representations of anxiety are not harmful and align with personal experiences of the illness.

### *Containment/Constraint CMs*

Containment/Constraint CMs were the second most popular category in the Media corpus but joint sixth in the First-person corpus alongside Suffocation and Evil CMs. The proportional increase in the Media corpus was found to be statistically significant, indicating a preference in the media for conceptualising anxiety in this way. It is unclear why there is a preference for this particular category. Wallis and Nerlich (2005, p.2634) found that UK media conceptualised the 2003 SARS pandemic with intensely negative metaphors such as ‘killer’ and ‘criminal’. Additionally, Ma (2017, p. 90) found ‘media portrayals of mental illnesses generally negative’. These sources suggest that the media may have a preference towards negative

conceptualisations of illness, but this does not answer why Containment/Constraint metaphors are popular, as these are relatively innocuous in comparison with other categories such as Suffocation or Evil. A hypothesis could be that popular Containment/Constraint CMs such as ‘prison’ complement news stories regarding crime and incarceration. However, proving or disproving this theory would require evidence beyond the scope of this paper.

Containment/Constraint CMs were frequently observed in studies on depression (Charteris-Black, 2012; Beck, 2020; Coll-Florit et al., 2021) and also identified in studies of anxiety (Woodgate, 2021). Charteris-Black (2012, p.207) states that Containment/Constraint metaphors conceptualise ‘depression as an external container that they are encapsulated within or experience themselves as the container of suppressed negative emotions’. Metaphors of anxiety in the present study refer almost exclusively to the former interpretation, supporting Woodgate’s (2021) findings which make no reference to suppressed negative emotions, but many references to ‘living in a box’, ‘being stuck/trapped’, and ‘a shrinking world’. This observation again demonstrates the intersection between anxiety and depression, whilst simultaneously illustrating a subtle distinction between the two illnesses.

The paucity of Containment/Constraint CMs in the First-Person corpus relative to the Media corpus does not appear to have any implications for healthcare professionals or practices.

### ***Burden/Nuisance CMs***

Burden/Nuisance CMs were the second most popular category in the First-person corpus, and joint fourth in the Media corpus alongside Collapse and War CMs. However, the proportional difference between the corpora was not found to be statistically significant. The p-value was narrowly beneath the threshold of significance, meaning more research would be needed to clarify whether this result was indicative of issues with the methodology or sample, or whether there truly is no significant difference between the two groups. Burden/Nuisance CMs were

identified in Woodgate's (2021) study of anxiety, and in the studies of depression (Charteris-Black, 2012; Coll-Florit et al., 2021). In the present study, participants commonly conceptualised anxiety as a 'weight', 'pressure', or 'physical entity', indicating that the illness represented persistent discomfort and an inescapable presence.

The results do not appear to have any implications for healthcare professionals or healthcare practices.

### *Collapse CMs*

The largest proportional disparity between the corpora was displayed in Collapse CMs, however, neither corpus had an especially large proportion of Collapse CMs relative to their respective totals. The preference for this category was in the Media corpus, which the Chi-square test found to be statistically significant. This category was not found in previous studies of depression, anxiety, or PTSD, and in the present study the First-person corpus contained only one observed instance. Therefore, the data indicates that the media has some inclination to promote conceptualisations of anxiety which do not align with individual lived experiences of the illness.

The most popular source domains for this category were 'breaking' and 'unstable floor'. As stated in the results, the core of these source domains is destruction and instability, both internal and external. It is unclear why the media would demonstrate a preference for this category of CM. Perhaps elements of catastrophe and destruction feel tangible and therefore noteworthy to journalists, it might be that inflammatory or hyperbolic metaphors make for more engaging articles, or perhaps vague metaphors such as 'breaking' are more universally relatable.

There may be some healthcare consequences to this analysis. The data suggests that the media is presenting experiences of anxiety that are divorced from the lived experience / reality of it. The main consequence of this is people being misled into seeking guidance for assistance with

an illness based on symptoms or experiences which are not related to the illness they think it is. While healthcare professionals are not necessarily affected by this, intervention and access to treatment in a timely manner might be. Due to the relatively low proportion of this category in the Media corpus, any effects stemming from the media's misrepresentation are likely minimal, therefore, so too are the overall consequences for healthcare professionals and treatments.

### ***Suffocation CMs***

The second largest disparity between corpora was displayed in Suffocation CMs. The First-person corpus had a statistically significant preference for this category, however, neither corpus had an especially large proportion of them relative to their respective whole. Previous studies provide supporting evidence for Suffocation as a CM category of anxiety. This category was observed in the Woodgate (2021, p.6) study which found several participants referring to their experience of anxiety as 'drowning'. Studies of other mental illnesses such as depression or PTSD did not have metaphors which would fit into the Suffocation category, suggesting that this feeling is somewhat exclusive to anxiety. It might be the case that other illnesses are conceptualised using source domains in this category, but too few have been analysed to tell.

Although Suffocation CMs were not especially common in the data, the large and statistically significant disparity between the corpora highlights a distinction between the ways in which the two groups frame anxiety. The scarcity of Suffocation CMs in the Media corpus could suggest a scepticism surrounding the severity of anxiety from the media outlets, and societal values and opinions which the articles are catered toward and represent. Additionally, the preference for Suffocation CMs in the First-person corpus could be indicative of the individuals' desires to express the seriousness of the illness which they feel is not represented or acknowledged societally. This can be interpreted from source domains such as 'throat closing off' which liken symptoms of anxiety to symptoms of physical illnesses that are societally

understood and empathised with, such as asthma and severe allergic responses. However, this theory undermines explanations provided in the previous sections for the media's leaning toward hyperbolic and sensationalist content. While the reasoning behind the difference remains unsolved, the data does suggest that individuals appear to deviate from societal conceptualisation of anxiety by using this category.

The preference in the First-person corpus for Suffocation CMs, and the evidence for their use in previous studies indicates that there might be some healthcare implications from these findings. Parallel to the discussion of the Collapse CM category, Suffocation CMs are a minority category and therefore any implications are likely to be small. Additionally, these conclusions are more relevant to health and wellbeing than to healthcare professionals, who already have an awareness of the severity of physical symptoms present in people suffering from anxiety. The main implication for healthcare would be that if the media are inaccurately conceptualising anxiety, this suggests a societal unawareness of symptoms which present in people experiencing it, and therefore an ignorance of its severity. Ignorance of severity could lead to delays in diagnosis (Corner et al., 2006) and a lack of empathy and recognition for the illness societally. However, Suffocation CMs were found to intersect with the greatest number of other categories, two of which (Escalation/Loss of Control, Containment/Constraint) were the largest proportional categories observed in the Media corpus. Therefore, the results appear to only narrowly support the claim that First-person preference for Suffocation CMs may have healthcare implications.

### ***Conceptual Metaphors of Anxiety***

This study found CMs which have previously been identified in studies on anxiety and other mental illnesses, and also identified new categories of CM which were not previously found. Table 5 displays the full list of identified CM categories with their associated metaphors.

<b>All Anxiety CM Categories</b>	<b>Associated Metaphors</b>
<b>Burden / Nuisance</b>	Weight; burden; physical entity; pressure; thief; creep; haunted
<b>Collapse</b>	Walls falling in; unstable floor; breaking; tornado
<b>Containment / Constraint</b>	Prison; box; walls falling in; a strong grip; freezing; paralysis; captor; crippling; walking through treacle
<b>Darkness</b>	Dark place; dark alley; cloud
<b>Descent / Ascent</b>	Slope; drown; sink; rise; spiral; shrinking
<b>Disorientation / Confusion</b>	Spinning room; dense fog; illusion; liar; fraud
<b>Energy</b>	Overload; filled with anxious energy; batteries; racing mind; overthinking
<b>Escalation / Loss of Control</b>	Spiral; threat; on the edge; wave of fear; snowballing; spell; near miss; shifting goalpost
<b>Evil</b>	Hell; demons; the devil; plague
<b>Expectations</b>	Falling short; being a net
<b>Hunt</b>	Hunted; prey
<b>Internal Disruption</b>	Gut wrenching; seizure; churning inside; butterflies; sensory overload
<b>Journey</b>	Riding a wave
<b>Lethargy</b>	Shut down; battery draining; zombie
<b>Living Organism</b>	Startled rabbit; a duck; a zombie
<b>Suffocating</b>	Suffocating; can't breathe; throat closing off; couldn't get enough air; drowning
<b>Time</b>	Cyclical; living in the past; fearing for the future; repetition; circular pattern; impending doom
<b>War</b>	Battle; fight; war; attack

Table 6 – All CM categories of anxiety with associated metaphors.

Table 6 is a useful tool for future research to cross reference the CM categories of anxiety used by individuals and the media, inspired by the Coll-Florit et al. (2021, p. 16) table of main CMs of depression. It is likely that Table 6 is not a comprehensive list of the total CM categories used to conceptualise anxiety, but it is valuable for building a foundation of knowledge which future research can expand or modify if the present methodology becomes outdated.

To the best of my knowledge, this is the first study of CMs relating to anxiety with a systematic comparison of the proportional differences in use between the media and first-person experiences. It is also the first attempt to comprehensively group together the types of metaphors used to conceptualise anxiety, as has been accomplished for metaphors of other illnesses such as depression (Coll-Florit et al., 2021).



## Conclusion

The discussion above attempts to clarify the main findings of the results, but it is important to address whether this study answered the RQs outlined in the introduction, and any limitations of the study and gaps for future research. The RQs were:

RQ1: How are metaphors used to conceptualise anxiety?

RQ2: How do first-person accounts differ from the media in the use of conceptual metaphors of anxiety?

RQ3: Do these results have any implications for patient healthcare, or healthcare professionals and their support for patient recovery?

In answer to RQ1, the evidence suggests that a large variety of metaphors are used to conceptualise anxiety. 18 CM categories were identified, 16 of which were used in both corpora. Only Journey and Expectation CMs were not found in the First-person corpus. The data indicates that Escalation/Loss of Control, Containment/Constraint, and Burden/Nuisance were the most popular metaphor categories across the corpora, appearing in 18.76%, 11.76%, and 11.49% of the total respectively. These three categories therefore made up 42% of the total CMs identified. Contrary to much of the previous research, (Semino, 2015; Atanasova, 2018) the present study found consistencies and disparities in how anxiety is conceptualised societally and individually. These statistics also demonstrate that while there is a preference for using specific metaphors to conceptualise anxiety, the experience varies greatly from person to person. This aligns with prior research on physical illnesses such as cancer. For example, Gibbs (2002, p.161) states that ‘no single metaphor alone is capable of capturing the complexity of the individual woman’s thinking about cancer. Many metaphors are needed to make sense of different aspects of learning about being ill, treatment, and healing’.

In answer to RQ2, there are many ways in which the First-Person corpus differed from the Media corpus, but also ways in which the corpora were similar. Similarities were observed in the largest proportional categories, but clear differences between fringe conceptualisations of anxiety were also noted. There was a near-identical distribution of Escalation/Loss of Control CMs between the Media and First-person corpora, and this category was the most popular for both. The Media corpus was distinct in its preference for Containment/Constraint, and Collapse CMs, whereas the First-person corpus was distinct in its preference for Suffocation CMs, and possibly Burden/Nuisance CMs, though the present study found the disparity between corpora for this category to be just under the threshold of statistical significance. Future research could focus on metaphor categories which displayed the highest levels of contrast (Collapse and Suffocation) to understand whether these metaphors are in any way helpful or detrimental to people's wellbeing or recovery.

Finally, in answer to RQ3, the consequences for healthcare professionals and their support of patient recovery were minimal. The results which had potential healthcare implications were not necessarily relevant to healthcare professionals, but were to societal health, wellbeing, and recognition of the effects of experiencing anxiety. The results reflected some disparities between mainstream media and individual experiences, which I claim represents the difference between societal and individual conceptualisations of anxiety. Similar to the Atanasova (2018) study, individuals used metaphors to highlight aspects of anxiety which challenged mainstream narratives. However, both the Media and First-person accounts were ignorant to aspects of anxiety which the other had identified. This finding further suggests that anxiety is a complex and varied experience, perhaps exacerbated by the term colloquially being used to refer to both the illness and the emotion. It could also be the case that all uses, both societally and individually have value to people, and it might be misplaced to assume that future research would find any of these categories to be unhelpful to people.

### ***Limitations and Future Research***

One limitation of this approach was determining whether the data was from people with a clinical diagnosis of anxiety. It is perhaps more accurate to say that this research is representative of how people generally experience anxiety emotionally and as an illness, rather than how they conceptualise GAD or other forms of clinically recognised anxiety. Hopefully future research can focus on specific types of clinical anxiety such as GAD and PD to assess the validity of this study and test whether results parallel these findings. It would be useful for future research to identify metaphors used by people with only clinically diagnosed forms of anxiety, and people who have had no clinical diagnosis to compare whether there are any differences between these two groups. I think this could help elucidate these early findings and bolster any conclusions about whether healthcare implications can be gleaned from this research. As it stands, the current paper has been useful for identifying many of the ways in which anxiety is conceptualised but fails to determine which of those are clinical or emotional. The topic is complicated by the frequency with which mental illnesses present with comorbidities, so it is especially difficult to determine from articles and blogs whether these CM categories are exclusive to the experience of anxiety. This research still has value, because with or without a clinical diagnosis, it captures the way anxiety is conceptualised by contemporary speakers.

This research is relatively replicable, using tried and tested methodologies such as MIP (Demjen et al., 2016; Cotter et al., 2021) and CMA (Lakoff and Johnson, 1980), however the sample is not particularly varied and likely suffers from W.E.I.R.D biases because the data is exclusively from western, English speaking participants. Therefore, the degree to which the results are generalisable is yet to be determined. Laguilles-Villafuerte and Guzman's (2021) study on death anxiety in Filipino adults found that metaphors are not believed to be culture specific. Metaphors are conceptual, and therefore not bound by language, meaning these results

could represent conceptualisation of anxiety outside of the accident. Additionally, Charteris-Black (2012) and Coll-Florit et al. (2021) state that gender does not have an important influence on metaphor type, meaning gendered demographics should have had little impact on the results. A true, intersectional approach would undoubtedly improve the validity of the results and is something that should be considered in the future if data can be collected from exclusively identifiable participants.

There were also minor issues with my methodology for the identification of CMs. Previous studies (Beck, 2020; Coll-Florit, 2021) used a process of peer review to increase the objective likelihood of identifying the occurrence and categorisation of a metaphor. I was limited to using the same methodologies outlined in the previous literature, just without the assistance of a colleague which would have improved reliability. The MIP, CMA and categorisation processes somewhat improve reliability, but there is also a level of subjectivity which must be acknowledged. My own understanding of what quantifies a metaphor is partially subject to my personal knowledge and experience, so the validity of the results was likely marginally impacted.

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***Chi-Square tests of significance:***

***Containment Metaphors:***

Observed values:

	Occurs	Absent	
Media	19	90	109
1st P	7	108	115
	26	198	224

Expected values:

	Occurs	Absent	Total
Media	12.651786	96.34821	109
1st P	13.348214	101.6518	115
Total	26	198	224

Chi-Squares: 3.1853072 0.418273  
 3.0191173 0.39645  
 Sum: 7.0191469  
 DF: 1  
 p-value: <0.01 >0.005

***Collapse Metaphors:***

Observed:

	Occurs	Absent	Total
Media	8	101	109
1st P	1	114	115
Total	9	215	224

Expected:

	Occurs	Absent	Total
Media	4.3794643	104.6205	109
1st P	4.6205357	110.3795	115
Total	9	215	224

Chi

Squares: 2.9931238 0.125294  
2.8369608 0.118757

Sum: 6.0741347

DF: 1

p-value: &lt;0.025

***Burden Metaphors:***

Observed:

	Occurs	Absent	Total
Media	8	101	109
1st P	18	97	115
Total	26	198	224

Expected:

	Occurs	Absent	Total
Media	12.65179	96.34821	109
1st P	13.34821	101.6518	115
Total	26	198	224

Chi

squares: 1.71036 0.224593  
1.621124 0.212875

Sum: 3.768952

DF: 1

p-value: &lt;0.10 &gt;0.05

***Suffocation Metaphors:***

Observed:

	Occurs	Absent	Total
Media	1	108	109
1st P	7	108	115
Total	8	216	224

Expected:

	Occurs	Absent	Total
Media	3.8928571	105.1071	109
1st P	4.1071429	110.8929	115
Total	8	216	224

Chi

squares: 2.1497379 0.07962  
2.0375776 0.075466

Sum: 4.3424013

DF: 1

p-value: &lt;0.05