# Media representation of chronic pain in Aotearoa New Zealand—a content analysis of news media

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## ABSTRACT

**AIM:** To analyse how the New Zealand news media has reported on chronic pain and identify whether this publicly available information is reflective of best practice.

**METHODS:** A content analysis of news media published between January 2015 and June 2019, with a primary focus on chronic pain was undertaken. The Factiva, EBSCO and ProQuest databases, alongside popular New Zealand news websites were searched.

**RESULTS:** Two hundred and forty news articles were included; the overarching themes identified in content analysis were (1) the lived experience and the impact of chronic pain (n=119/240), (2) pain management strategies with information on pharmacological (ie, opioids and medicinal cannabis) (n=107/240) and non-pharmacological strategies (eg) psychological therapies (36/240), physical activity (34/240), pain education (34/240), (3) the systemic issues influencing chronic pain healthcare pathways (n=79/240).

**CONCLUSION:** Living with chronic pain is predominantly represented as a struggle, with a lesser focus on the ability to successfully self-manage and live a meaningful life. The limited emphasis on each of the non-pharmacological strategies suggest that the reports failed to communicate that these strategies should be a key component of self-managing chronic pain. New Zealand healthcare providers and researchers can collaboratively work with the media to provide evidence-based information on both non-pharmacological and pharmacological pain management strategies.

Chronic pain is the leading cause of disability worldwide.[1] It affects one in five New Zealanders and the annual prevalence is rising.[2] Chronic pain disproportionately affects older adults, females, Māori and those living in areas of high deprivation.[2] Not only does chronic pain burden individuals, but also society, costing the New Zealand economy an estimated annual cost of $14.8 billion in 2016 with projections of $24 billion by 2048.[3]

There are many types of chronic pain where no single cause can be determined.[4] Chronic pain is not always well understood, perhaps due to its variety of causes and ambiguous definition.[5] The International Association for Study of Pain has recently published the International Classification of Disease, Eleventh Revision (ICD-11)[4] definition for chronic pain based on biopsychosocial framework and classified pain conditions into chronic primary pain where chronic pain is the primary disease (eg, fibromyalgia, chronic migraine and chronic low back pain) and chronic secondary pain where pain is a symptom of an underlying condition (eg, pain caused by cancer or post-trauma/surgery or inflammatory joint diseases such as rheumatoid arthritis).[4]

Best practice care recommends healthcare providers adopt a biopsychosocial framework fostering adaptive behavioural change for people living with chronic pain.[6] Best practice care can vary across chronic pain conditions but generally includes a combination of non-pharmacological and

pharmacological strategies.[7] Non-pharmacological strategies such as psychological therapies (eg, cognitive-behavioural therapy, acceptance and commitment-based therapy and mindfulness-based therapy), pain neurophysiology education, physical activity and distraction techniques used alone or in combination are recommended as preferred management strategies for chronic primary pain[8] and chronic musculoskeletal pain.[9] Pharmacological strategies are recommended for some chronic pain conditions such as chronic cancer pain as part of palliative care and for managing chronic neuropathic pain.[10] For other pain conditions, selected pharmacological strategies are recommended to be used with care and caution due to their potential side-effects and limited effectiveness long-term.[7] For all chronic pain conditions, active self-management strategies (ie, non-pharmacological strategies) are recommended as primary pain management strategies, modified to be appropriate for the type of pain condition, presence of other comorbid health conditions (eg, depression), and psychosocial profile of the person. People treated using active self-management strategies have shown improved long-term functional outcomes as compared to those who adopt an attitude of reliance on others to fix their pain.[11]

There are barriers for many people with persistent pain to achieve optimal management of chronic pain usually supported by accessing specialised pain services as they are offered only in secondary or tertiary services.[12] Further, Māori and Pasifika and other ethnic minorities are underrepresented in accessing tertiary pain services in New Zealand.[13] In addition to access barriers, knowledge deficits, lack of awareness and misconceptions relating to pain management among healthcare providers contribute to inadequate pain management.[14] Further, lack of validation of symptoms from healthcare providers, family and friends has been perceived as a major barrier by people living with chronic pain to effectively self-manage their symptoms.[15]

Media representation can influence societal beliefs in regard to condition management and attitudes towards those living with long-term health conditions.[16] With an average of 3.1 million New Zealanders reading newspapers within a one-week period, news media has the potential to disseminate public health messages and influence public health behaviour.[17] An exploratory study[18] from the US analysing multimedia sources that focused on chronic pain (ie, newspaper reports, video blogs, memes and a movie 'Cake') from 2010 to 2015 found varying representations of chronic pain. While the authors concluded that the type of media source can influence the key messages delivered, the study did not intend to analyse if the contents reflect best practice care to influence beliefs at societal level. Another review on multimedia campaigns, including newspaper and video, about chronic pain has shown these can change beliefs and behaviours of the public and healthcare providers about chronic pain.[19] Given the potential for media accounts of chronic pain to influence experiences and/or understandings of chronic pain for people with pain, their family and communities and the beliefs of healthcare providers,[20] the aim of this study was to explore the representation of chronic pain in New Zealand news media.

# Methods

Using a content analysis approach,[21] the following methodological framework was used:
1) identifying the research question, 2) study selection, 3) identifying relevant articles, 4) charting data and 5) collating, summarising and reporting the results.

## Identifying the research question

The research question guiding our review was: How is chronic pain represented in popular news media in New Zealand?

## Study selection

Primary data were collated from print and online media available in the New Zealand public domain. Media articles were included if: they contained any reference to chronic pain in concordance with the ICD-11 definition of chronic pain,[4] and published in major New Zealand newspapers, magazines or radio podcasts since 1 January 2015 until 30 June 2019. Relevant radio podcasts were transcribed by the research team. Media articles were excluded if the focus was on acute pain or if access required paid subscriptions.


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## Identifying relevant articles

### Primary search

To identify potentially relevant printed news media articles, Factiva, EBSCO and ProQuest databases were searched on 10 June 2019. Search terms included [*"chronic pain"* or *"persistent pain"* and *"New Zealand"]* (see search strategies in Appendix 1). Search terms were developed with an experienced librarian and refined by team discussion after pilot searches. New Zealand newspapers and magazines identified were: The Press, The Dominion Post, NZ Herald, The Nelson Mail, NZ Doctor, Taranaki Daily News, Waikato Times, The Timaru Herald, The Southland Times, Manawatu Standard, North & South, NZ Listener, The Daily Post, Sunday News, The Marlborough Express, Bay of Plenty Times, Sunday Star Times, Wanganui Chronicle and NZ Newswire. Three authors searched all the databases (YK, DM and LE), duplicates were removed with the remaining primary articles used for screening. Five authors (CA, DM, LE, MS and YK) screened the first 20 news articles from the primary search and discussed findings to ensure consistency before full screening.

### Secondary search

A secondary search was performed on websites with Google search engine using primary search terms. The sites searched included major independently owned New Zealand print newspapers (Otago Daily Times and NZ Herald), major commercial or independent radio and/or television media outlets (One News Now, Newshub, Māori Television, Sunday Star Times, Radio New Zealand and Newstalk ZB*)* along with New Zealand news media websites (Stuff, Spinoff, Noted, Scoop, Voxy, Newsroom). These represent major New Zealand news outlets with an online presence.

## Charting the data

Articles that met the initial criteria were charted on Microsoft Excel Sheet® and consequently entered into EndNote X9 library (Clarivate Analytics). The initial screening involved screening of headlines and texts (LE, DM and YK). After the initial screen, the full text of the news articles were examined to exclude duplicates that were not identified in EndNote by meta-data, and articles that did not have a primary focus on chronic pain. Authors then worked in pairs to establish congruence about the inclusion of uncertain articles. A third author (HD) adjudicated any disagreement (n=16). The remaining news articles were included for the content analysis.

## Content analysis

A conventional approach to content analysis was used where categories were inductively derived from the data to identify overarching themes within the texts.[21] As per this inductive approach, the emergent codes and supporting quotes were established after in-depth reading of texts. Each author made notes of their impressions of these texts, as this iterative process continued, codes were derived that captured more than one key thought.

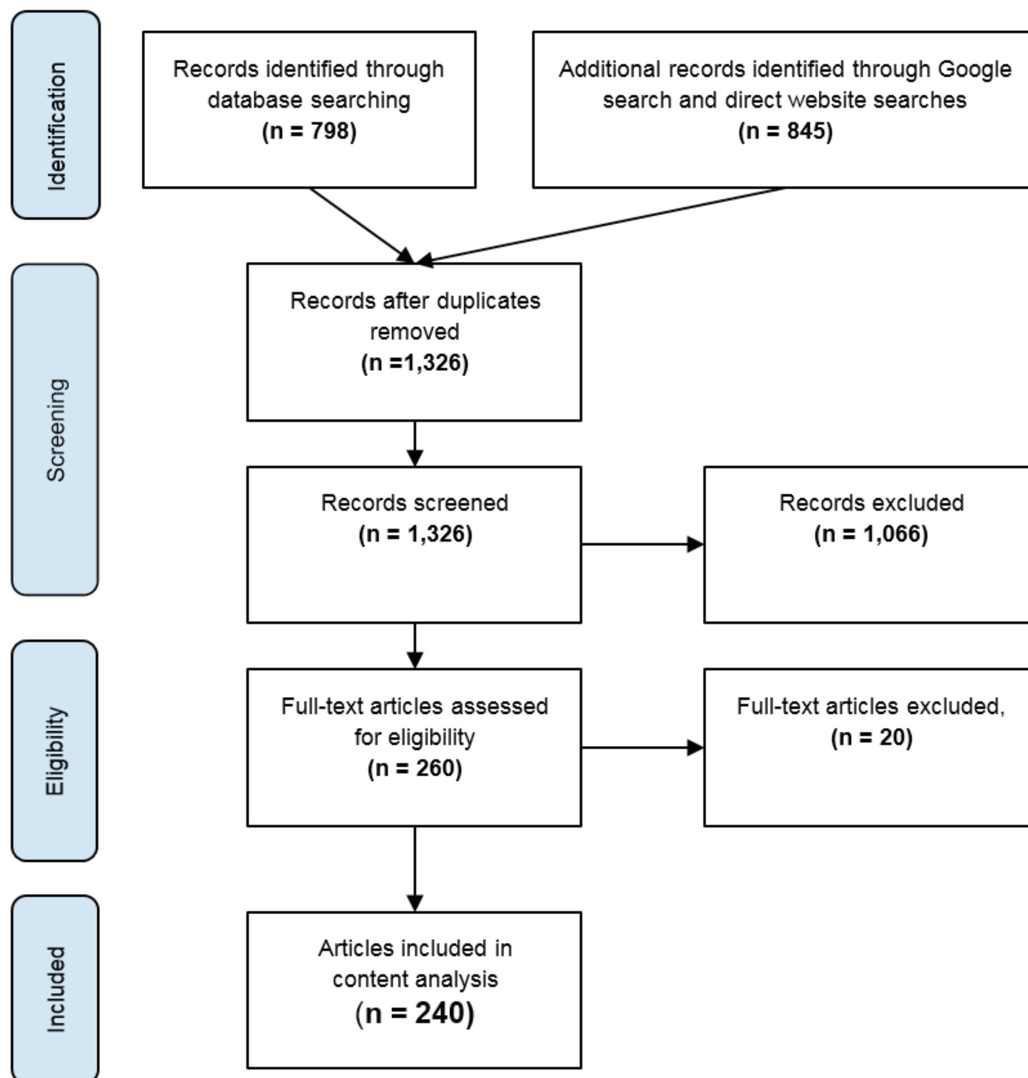
Coding of data was completed to extract and classify relevant data from the included media.[21] To minimise the subjectivity of text interpretation, four of the authors piloted this using 20 news media articles to establish analytic concordance (LE, DM, YK and MS).[22] Once finalised, the authors worked in pairs to identify key themes and sub-themes within the texts. The final themes and sub-themes were finalised by a consensus meeting involving the entire research team. To ensure credibility of the analysis, another author (JY) independently coded and thematically analysed a randomly selected subset of 20 included articles to produce themes for comparison.

# Results

After the database search and screening, 240 articles were included for content analysis as shown in Figure 1. Most of the articles were excluded as they were not focusing on chronic pain.

The three overarching themes identified in content analysis were (1) the lived experience and the impact of chronic pain, (2) how chronic pain is managed, (3) the systemic issues influencing healthcare pathways of chronic pain management. The findings are presented in Tables 1–5, with a selection of example quotes from the news articles. The frequency of news articles published since 2015 and the types of news sources are presented in Appendix 2.

**Figure 1:** News article selection process.




## The lived experience and the impact of chronic pain

Almost half of the included articles (n=119/240) reported on personal experiences of living with chronic pain, the impact of pain on quality of life and the attitudes towards managing pain (Table 1).

Chronic pain was reported as a disabling long-term health condition impacting on an individual's quality of life (n=69/240) and their sense of identity (n=54/240). Chronic pain impacted daily life by affecting an individual's sleep, ability to participate in social activities and most frequently, placing stress on relationships (Table 1). Another sub-theme encompassed the constant burden of chronic pain, forcing many to stop or reduce working, leading to financial hardship (n=50/240).

An additional subtheme identified was attitudes towards managing pain. We identified two key attitudes among people with chronic pain (Table 1). The first was more a negative attitude towards pain (n=44/240) where chronic pain was described as 'debilitating' and a cause of 'suffering'. Such articles reported primary reliance on pharmacological options, particularly opioids, for managing their symptoms, which frequently led to dependence and

addiction. Chronic pain was portrayed as challenging to manage, with people often looking for a 'quick fix'. As well as experiencing the negative effects of chronic pain, there were some articles (n=28/240) which reported people demonstrating a positive attitude towards living well with pain. Positive attitudes were expressed in the form of people taking active responsibility for their pain management, remained hopeful, and had support and motivation to manage their symptoms. Despite the positive attitudes towards managing pain, very few reports focused on the time, patience and work required to self-manage chronic pain (n=13/240).

## How is chronic pain managed?

Information on chronic pain management strategies focused on both passive approaches such as pharmacological management (n=107/240) with opioids (n=67/240) and medicinal cannabis (n=65/240) (Tables 2 and 3), and active approaches such as non-pharmacological management strategies (n=97/240) (Table 4). Articles addressing opioids or cannabis products as treatment options often did so in the context of possible legalisation of cannabis products for medicinal use (n=59/240).

The sub-theme of opioid-based painkillers (n=67) included reports of opioids as ineffective for chronic pain, leading to dependence and addiction, producing unwanted side-effects, being prescribed with inadequate information, explanation or advice about alternatives, and overall being perceived as harmful and dangerous (Table 2). In contrast, the sub-theme of medicinal cannabis use for chronic pain (n=65) was portrayed as an effective and safe treatment option with minimal or absent side effects as compared to opioid-based analgesics (Table 3). The expense and inability to source medicinal cannabis legally were highlighted. Medicinal cannabis was portrayed as a solution withheld from people with pain by the New Zealand government and reported as being a last resort, with people reluctantly accessing it illegally. Finally, few articles (n=15/240) mainly from healthcare providers reported a lack of robust scientific evidence supporting the benefit of cannabis products in chronic pain and warranted further research before recommending therapeutic use (Table 3).

Around 40% of the articles (n=97/240) reported on active approaches such as non-pharmacological management strategies and the importance of holistic treatment, avoiding singular focus on pain (Table 4). Holistic approaches for the management of chronic pain included patient-centred care within a multidisciplinary framework (n=36/240), incorporating pain education and acceptance of pain (n=34/240). Other non-pharmacological strategies included use of psychological therapies such as cognitive behavioural therapy, mindfulness and meditation (n=36/240), and encouragement of physical activity (n=34/240). The effectiveness of these non-pharmacological approaches was occasionally noted by both health professionals and people living with chronic pain (Table 4).

## Systemic issues influencing healthcare pathways of chronic pain management

Various healthcare system challenges were reported (n=79/240): lack of healthcare service resources (n=45/240), lack of understanding and not being listened to by healthcare providers (n=30/240), ethnocultural differences that exist when seeking medical care (n=10/79), and delays in receiving diagnosis (n=27/240).

Chronic pain was portrayed as a condition that is not well understood by both healthcare providers and patients (n=28/240). People without diagnosis recalled experiences where they were perceived as 'malingering', 'attention-seeking' or drug-seeking by healthcare providers (n=13/240). This contributed to people 'feeling frustrated' and 'not being listened to' when interacting with healthcare providers. Reports of being passed between specialists were also mentioned (n=15/240). These reported experiences led to people giving up seeking medical attention, negatively impacting their prognosis. Many articles highlighted the challenging and lengthy process required to receive a diagnosis. Formal diagnosis was reported to provide relief and validation of their symptoms.

**Table 1:** Theme #1: The impact and lived experiences of chronic pain.

| Sub-themes | Description | Example 1* | Example 2* | Example 3* |
|---|---|---|---|---|
| **Impact on the person** | Chronic pain impacts the person's whole life by changing the person and those around them. | "Chronic Illness completely changed my life and who I was as a person."[23] | "She's in chronic pain. She's lost in it. She has no quality of life."[24] | "Her pain is the central fact of their family life."[25] |
| **Impact on daily life** | Chronic pain affects quality of life negatively and forces people to give up their meaningful activities. | "It's like living half a life. I get home at the end of day wiped out. There's so many things I don't do because I am so sore and tired."[26] | "It has completely taken my quality of life. I just watch TV now."[27] | "I've lost my health, my job, my marriage and my home."[28] |
| **Impact on work and financial situations** | Inability to work leads to deterioration or loss of financial wellbeing. | "People have to make choices about how they exist that may worsen their illness, such as not heating their houses to the level they should."[29] | "Severe pain causes frustration, anxiety, depression, it affects people's social life, their family life, their financial life, it has a big impact on their whole life."[30] | "I just want to live a normal life and be able to get on with what normal people do, like going to work."[29] |
| **Positive attitudes towards chronic pain** | Positive attitudes associated with successful coping strategies and ability to focus on living a meaningful life despite pain. | "It may take a while, it doesn't happen overnight, but it can and will get better."[23] | "I have chosen a really positive mindset. I've dealt with severe chronic pain and still managed to create a life for myself. The coping strategies I've been using for years still apply."[31] | "You can do two things. Sit around and let it take over your life, or get up and live with it, not let it beat you."[32] |
| **Negative attitudes towards chronic pain** | Negative attitudes associated with difficulty coping and decreased quality of life. | "I'm lying on a bed and no one cares, and no one is speaking up for me."[24] | "I rehearsed nuanced replies: Not too bad. Not so good. As good as. Waiting and hoping."[33] | "I live with chronic pain, 24 hours a day, seven days a week, 365 days a year. I am perpetually teetering atop a dark chasm called complex regional pain syndrome "[34] |
| **Management requiring time, money and effort** | People looking for a quick fix but chronic pain management takes time and sustained effort. | "As I say to people, it didn't take you five minutes to get to where you are, and it's going to be hard work and going to take you time to get out of it,"[35] | "The pain journey can take time, and if you've had a problem for 20 years, it can become very seared in your consciousness."[36] | "I just gritted my teeth and pushed through, knowing that even though my back hurt like hell this week, it's worth it to be pain-free in time. Patience and hard work. There is no quick fix, super exercise or magic pill. Nothing worth having is gained easily."[37] |

**Table 2:** Theme #2: Sub-theme: Opioid-based treatment of chronic pain.

| Sub-themes | Description | Example 1* | Example 2* | Example 3* |
|---|---|---|---|---|
| **Opioid-based painkillers not effective for chronic pain** | Personal and professional opinions about effectiveness: commonly prescribed opioid-based painkillers only working short term or not helping at all. | "She was told the treatment regime would be ongoing and 'it was just going to be the new me'. After a couple of months the medication's effects wore off and the pain returned worse than ever."[38] | "[She] had previously been on a large amount of strong opiates, using "uppers and downers" for chronic pain related to fibromyalgia. She said they didn't 'touch the sides' of her pain and kept her as a 'zombie'."[39] | "He says using strong opioids like fentanyl for chronic, non-cancer pain is inappropriate. The drugs tend not to work well when used over a significant period of time, and the side effects increase."[40] |
| **Dependence and addiction** | Constant use of opioid-based painkillers led to dependence and addiction. | "After four years of opioid use I am addicted and due to my high tolerance of this drug, it is now all but useless as an analgesic for me."[41] | "When we see a name of Endone, codeine or OxyContin, people think it's just a painkiller—but it's opium-based. And people get addicted to opium or heroin."[42] | "There's a sense [among patients] that, because a drug is prescription or over the counter, it's less harmful, less risky and they wouldn't sell it to you if there was a problem. But all opioids can have the effect of you developing a physiological dependency, because you develop tolerance and when you take them away you get all those withdrawal symptoms."[43] |
| **Side effects** | Accounts of experience with opioid-based painkillers producing harmful side effects, such as drowsiness, depression, nausea, constipation, that impact the life as much, if not more, as the chronic pain itself. | "But it [Tramadol] is potent, and has side effects. As a fairly small woman, the drug has a powerful effect on me, and whenever my pain increases to a level that I have to go back on it, I have to plan to take my first pill with a decent 12 hours on the other side in which I can either sleep or lie on the couch feeling nauseous and stoned out of my mind (and not in a good way). The last time I went back on to Tramadol, back in January, I couldn't stand up for about eight hours."[44] | "The pills all managed [his] pain—initially—but as his resistance grew, the dosages were increased and the side effects worsened. Eventually his life was a nightmare of constipation, drowsiness, depression and memory loss."[45] | "Those drugs left him with no energy, feeling depressed, his memory was shot and he was sleeping at least 14 hours a day…'I was that sedated, I couldn't really live a normal life. That's why they [doctors] took me off it and put me on methadone.' He would remain on methadone for five years. It managed his pain for the first six months, but when the dosage needed to be increased, the side-effects worsened."[45] |
| **Information and risks not given by healthcare providers** | Not enough information about painkillers is given to people with chronic pain which impacts the consent as the risks and side-effects were not fully explained. | "...she saw her doctor about her chronic pain and mental health issues. He gave her 150 tramadol tablets for the pain, as well as antidepressants. 'He just prescribed it and from then on I didn't need to see him again ... I just had to call up for a re-script'."[43] | "Doctors would give him opioid prescriptions without advising of the side effects and potential for addiction."[45] | "I got a whole stack of them while I was in hospital ... and then afterwards I got a whole stack and a prescription. It was weird, some doctors would warn against it—like 'I won't give you too much of this' and others were quite free—'here you go' kind of thing."[46] |
| **Prescribed without alternative** | Opioid-based painkillers are prescribed as the only solution, other options not being explored. | "The tramadol gets me through that bad time and then I get on with it. I've got a headache today, I know I'm going to be exhausted tonight, and I know that I'm going to need to take some morphine just to have a break from the pain tonight. I don't like it, I don't want to, but I have to, because there isn't the alternative."[47] | "Doctors recommended strong pain relief, including high doses of tramadol and codeine medication as the only treatment."[38] | "Long-term opioids for most pains aren't terribly useful, but the script just gets continued, or the patient turns up saying 'oh I got this from the hospital', so the doctor just continues it."[43] |
| **Drugs are harmful and dangerous** | Overall perception of opioid-based painkillers being harmful and dangerous. | "I was in such a bad place mentally; every day I was on the edge of taking the maximum amounts of opiates you can without having a cerebral seizure. I would think about my children and [I was] frightened."[48] | "I was looking at my little girl and I thought if I keep taking all these pharmaceuticals, I'm not going to last to see her get married, my liver function will crap out."[49] | She says people don't realise how dangerous opioids can be. "I still feel the effects of it even now. It's done nothing but ruin my body in a way I can't take back."[43] |

**Table 3:** Theme #2: Sub-theme: Medicinal cannabis use for chronic pain.

| Sub-themes | Description | Example 1* | Example 2* | Example 3* |
|---|---|---|---|---|
| More effective, better strategies for chronic pain | Medical cannabis is an effective treatment for chronic pain, based on personal/anecdotal evidence. | "I can make a cup of tea in the morning, which will ease my pain, I can eat a cookie in the day and I can have a little cone at night and that will take care of everything, instead of taking approximately 16 pharmaceutical opiates to get through the day."[49] | "And then a friend who has cancer shared some of his high CBD cannabis pills with her. That was life-changing. It meant I wasn't in so much pain and could get up and do stuff."[50] | "Ask anyone who has tried medicinal cannabis for chronic pain if it works. Feedback from the 170 patients I started on CBD shows half report very good to excellent response. Many have suffered pain for years or decades, unresponsive to standard treatments with associated side-effects."[51] |
| Less side effects | Medicinal cannabis does not produce any side-effects and is a desirable alternative with less impact than opioid-based painkillers. | "Not a cure or anything but a great alternative to opiates. It means pain relief that doesn't affect me in a bad way. A natural solution without all these massive side effects."[52] | "Other drugs upset my system so badly. I have tried all the pills, none of them agree with me. Tramadol put me in hospital, damaged my pancreas. I rely on cannabis—it's the only thing that doesn't upset me."[53] | "It's a 'strange feeling' to be pain-free and without nasty side effects, he says. His energy levels have returned, he is lucid and aware of his surroundings—and he even walks the dog. 'My life's fantastic. I am getting up early, I am more active, I can actually remember stuff now'."[45] |
| Legal medical grade expensive and inaccessible | The only legal cannabis option is inaccessible requiring numerous bureaucratic hurdles, and is expensive. | "To get a prescription for their patient, a doctor and a specialist must apply to the Ministry of Health, with [Associate Health Minister] making the final call. [He] has been approved to receive the drug, an oral spray, but it is enormously expensive. 'When the script arrived, I took it to the pharmacy and they wanted $1,400' she says, "and I just didn't have that money."[47] | "Technically speaking a legal form of medical marijuana is available in New Zealand. It's a mouth spray called Sativex. But at approximately $1,200 a month it is out of most people's reach. The other thing about Sativex is that it's almost impossible to access. [She] tried and was knocked back."[52] | "If it was a realistic affordable opportunity then I would definitely apply, it should be more accessible for people who need it."[52] |
| Solution being withheld by government from people | Debate around medicinal cannabis for chronic pain transforms into debate about government creating obstacles and withholding an effective and cheap treatment for chronic pain sufferers. | "Millions of taxpayer dollars are shelled out annually to fund thousands of daily doses of methadone for drug addicts without question, yet they drag the chain when it comes to offering people in real pain, with chronic conditions a viable alternative".[55] | "[She] tried marijuana and finds it transformative. "It works and it's a crime that it's not available to us"[52] | "He said blocking access to cannabis for medicinal purposes was a breach of human rights."[49] |
| Last resort, people forced to illegal means | Failure to decriminalise cannabis for all medicinal uses forces sufferers of chronic pain seeking pain relief to turn to illegal practices. | "People who take marijuana for pain relief are still technically criminals, and those who are supplying it to them are putting their lives on the line. Co-leader of the Aotearoa Legalise Cannabis Party is one of those people who are risking it all to relieve her own chronic pain and others who are suffering in her community. 'I'm not just doing this for myself—it's for everyone. The law sucks. They're just making criminals out of us'."[56] | "This month she revealed she takes cannabis oil to relieve the pain. She had exhausted all legal pain relief."[47] | "Campaigners have been calling on the Government for some time to provide safe legal access to cannabis-based pain relief. 'Legitimate and high-needs patients [name omitted] are forced to go to the blackmarket by the high bar for access of a comparatively safe analgesic'."[53] |
| Minimal scientific evidence presented | Professional opinions based on the scientific evidence referring to lack of evidence or lack of strength of this evidence to support the use of medicinal cannabis for chronic pain. | "Experts from the University of Otago say there's little or no evidence it works. 'It's not a silver bullet, we all wish there was a silver bullet for chronic pain'."[57] | "The international data on which one could make an informed decision about the effect of medicinal cannabis on chronic non-cancer pain is in fact very poor. The conclusions have been oversold."[58] | "'We found no evidence that cannabis use improved patient outcomes,' the researchers wrote in Lancet."[59] |

**Table 4:** Theme #2: Sub-theme: Non-pharmacological management of chronic pain.

| Sub-themes | Description | Example 1* | Example 2* | Example 3* |
|---|---|---|---|---|
| **Holistic focus** | Chronic pain is complex, requiring a holistic approach to management. Some opinions expressed the inadequacy of relying solely on pharmacological management strategies, and the need of individualised treatment. | "We know that chronic pain is a much more complex phenomenon which requires a holistic approach to management that is tailored to the individual's circumstances. To rely only on medicines is just not going to work."[60] | "We have to look at the big picture and support the whole person and not just the limb."[30] | "We start to look at pain as a pie with lots of different segments," ... "We work with these people in areas where we can make a difference. It's very individual and might be a combination of medication, physical therapy and some psychological input."[61] |
| **Multidisciplinary input** | There is a need for multidisciplinary input when managing chronic pain in order to improve health outcomes for individuals. | "Multidisciplinary management more than doubles return-to-work rates for patients and substantially reduces opiate use and annual medical costs."[62] | 'We know that linking people to integrated, multidisciplinary models of care will improve outcomes of health and wellbeing—evidence shows this reduces the amount of pain medication required and can reduce the burden on other health services."[63] | "A multidisciplinary approach to chronic pain management is widely considered best practice. This involves medical doctors, physiotherapists, psychologists and nurses, among others."[64] |
| **Physical activity** | Physical activity can be successfully incorporated in the management of chronic pain and help improve the individual's quality of life. | "Running has been key to helping a former Olympian overcome chronic pain. 'I really like running. I can't get it out of my system. 'Every little step is a step forward and it's something to celebrate—just like the Olympics'."[65] | "If I could tell anyone with fibromyalgia one thing it would be to get out there, get active and give it a go. Not doing anything makes the pain so much worse and makes it so much harder to find the motivation to get better. Slow and steady wins the race and small steps are all it takes to begin to improve the quality of your life."[23] | "We may not have a cure but improving our quality of life through exercise and other effective measures sure is worth it to have pain more manageable and regain the ability to work away at doing some of the things we were able to do before we got ill."[23] |
| **Psychological Strategies** | Psychological treatment can be included as a strategy for non-pharmacological management of chronic pain. | "Mindfulness-based cognitive therapy, which uses meditation and other therapeutic techniques, has been extensively studied as a treatment for preventing relapses of depression. This therapy is also becoming established as a valuable skill for pain sufferers."[66] | "CBT (a therapy offered by psychologists) can be really useful in coming to terms with a change in lifestyle that CP may have caused."[67] | "She has done acceptance and commitment therapy and participates in a weekly mindfulness and meditation session at the service. Separately she sees a physiotherapist She still has pain but copes by managing her life well—doing things she enjoys and that keep her mind busy, while still staying calm."[68] |
| **Understanding and acceptance** | Understanding chronic pain mechanisms and accepting the process of working towards good quality of life despite the pain is an important aspect of managing pain. | "When it comes to pain, all the outcome data shows that knowledge is more effective than anything else."[36] | "Understanding how pain works and the value of the strategies—such as pacing or increasing daily activities, relaxation and meditation—reinforced the participants' ability to self-reflect and accept how they might live well with chronic pain. It also fostered their ability to continue to use the strategies they had learnt."[69] | "Instead of trying to find answers, I'm trying to live with what I've got. It's a constant balancing act for me—to not allow my pain to rule my life and bring me down."[68] |

**Table 5:** Theme #3: Systemic issues in healthcare associated with chronic pain.

| Sub-themes | Description | Example 1* | Example 2* | Example 3* |
|---|---|---|---|---|
| Importance of getting a diagnosis | Many individuals wanted a formal diagnosis to validate their chronic pain for themselves and others. A diagnosis aids self-management. | "Before being diagnosed, people were sceptical and somewhat cynical of my experiences. They would tell me to get over it. I finally had a diagnosis and I was so relieved."[70] | "Being diagnosed gave me a sense of relief in terms of I now had a name for my pain, a reason and real diagnoses for the way I felt."[71] | "They seek to make sense of their pain, their diagnosis and what is important in life."[70] |
| Not being understood or listened to by healthcare providers | When dismissed by healthcare providers, people with chronic pain are made to believe that the pain they are feeling is not real and is all in their head. | "Those not in wheelchairs, or whose pain comes and goes, are often misunderstood and dismissed. Every patient I have ever met has been made to feel that the pain is all in their head. Someone doesn't believe them. But the pain is real."[73] | "I think doctors sometimes don't take people seriously and you will see women complain more about pain in more places, more often and say it's more intense. They often don't get taken as seriously."[74] | "There are still doctors out there who think this is all in our heads or that it's depression...that it wasn't as bad as I was making it out to be."[75] |
| Lack of understanding about chronic pain | Chronic pain is not well understood by healthcare professionals in New Zealand, where people with chronic pain are sometimes left without answers. | "Clinicians generally demonstrate inadequate knowledge and inappropriate beliefs about pain. Insufficient pain-related competencies may limit how well healthcare professionals provide effective treatments."[76] | "I felt like no one understood. The people who you're meant to trust the most with your health are doctors. You'd think that they would do anything to get to the bottom of what was wrong with an 18-year-old girl in chronic pain."[77] | "I have been told by previous employers, WINZ and a past gynaecologist that it's all made up and it shouldn't hurt."[78] |
| Lack of resources | There is limited availability of pain specialists and pain clinics, unable to meet the treatment needs of people with chronic pain in New Zealand. | "Pain management is often the ambulance at the bottom of the cliff. We are grossly under-resourced."[79] | "With an ageing population this is only going to go up and skyrise, we need more resources to tackle persistent pain in this country."[80] | "He has begged the health minister for more resources as thousands of New Zealanders live in misery after being shut out of specialist medical services."[81] |
| Ethnocultural barriers | There are disparities with regards to who is more likely to seek/receive medical help for chronic pain within ethnoculturally diverse groups. | "Ethnic minority groups not accessing chronic pain services were complex. [They] are less likely to seek help for chronic pain despite having greater needs than Pakeha."[82] | "Many Pasifika people in New Zealand do not seek hospital help to cope with chronic pain."[83] | "Ethnic minority groups tend to be significantly under-represented and show more severe symptoms. It would be relatively easy to integrate Māori, Pacific and Asian cultural practices, because multidisciplinary chronic pain services are holistic by nature. One of the only things missing is a spiritual component."[64] |

New Zealand's lack of resources for chronic pain diagnosis and management was a frequent sub-theme reflected in New Zealand news media (n=45/240). Specific issues reported were lack of pain specialists in practice, a shortage of funding available, need for further training of healthcare providers, a need to open more accessible multidisciplinary pain clinics, improving access to existing pain clinics and addressing the prolonged waiting time for appointments with pain specialists.

Ethnocultural issues were also noted (n=10/240), with ethnic minorities having difficulty receiving a diagnosis. Some reports suggested Māori, Pasifika and Asian communities in New Zealand were less likely to seek medical help, regardless of their severity of pain, due to lack of culturally-responsive healthcare services.

# Discussion

This content analysis found that chronic pain is often represented in media by focusing on the burden of living life with pain. There were also some reports of people adopting active approaches to successful self-management. The limited emphasis of each of the non-pharmacological strategies such as psychological therapies, physical activity, and pain education and acceptance suggests that the reports failed to communicate that non-pharmacological strategies including active self-management should be prioritised to live well with chronic pain. Reporting on opioids focused on the risk of dependence and adverse effects, however reports regarding medicinal cannabis products largely presented this as a desirable therapeutic option with only limited reporting on lack of scientific data supporting these benefits. There was no reporting of the potential adverse effects of cannabis products. Many reports accurately reported health system limitations leading to challenges with access to appropriate care for chronic pain management that meets health needs particularly for ethnoculturally diverse communities.

The New Zealand news media commonly reported on the impact of living with chronic pain. Chronic pain was portrayed as a condition that is poorly understood unless a person experience it themselves. This has been reported in 69 articles where people with chronic pain reported loss of social roles due to pain impacting their ability to engage in daily tasks. Previous research looking at news media depictions of mental health in New Zealand and Australia found similarities when media reports on personal experience.[84,85] People with mental health issues experienced a sense of vulnerability where they too felt an inability to control their own life, affecting their participation within their communities.[84,85]

New Zealand news media frequently presented chronic pain as a debilitating condition, with only a few reports suggesting the potential for coping well with ongoing pain with adequate support. However, evidence suggests chronic pain can be successfully managed with multidisciplinary health professional input.[11] This is represented in a few of the included reports that captured positive experiences of people coping well with pain due to receiving multidisciplinary input from pain services in New Zealand. Further, media reporting has the potential to change public misconceptions, address myths and provide hope and support by offering helpful information.[20] Similar to our finding, negative portrayal of people living with mental health conditions in the media was previously reported in New Zealand,[86] which led to the development of a media reporting guideline for accurate portrayal of people living with mental health conditions in New Zealand.[87]

In addition to limited coverage of each of the non-pharmacological approaches, there was limited information on clinical effectiveness of non-pharmacological strategies. Non-pharmacological self-management strategies have sufficient evidence to support their effectiveness for chronic pain management.[88] However, much of the information published in the media recommended seeking support from health services or pharmacological strategies instead. As a result, the New Zealand public may not be receiving balanced coverage about potential effective management strategies with a robust evidence base. There was however a clear portrayal of the limited capacity of, and access to specialist pain services. This is not unique to New Zealand; a telephone-based study (n=4,839) conducted in Europe reported that very few people had been introduced to effective pain management strategies despite the high-quality evidence supporting non-pharmacological strategies.[89]

The extensive reporting of people's experiences with opioids used for pain management suggest best practice pain management, with avoidance, or at least minimisation of opioid use, may not be widely practised in New Zealand despite existing guidelines.[90] Current guidelines recommend not using opioids as a primary pharmacological treatment option in people with chronic non-cancer pain and recommends opioid use only in people with cancer pain and in people with failed non-pharmacological treatments (eg, complex cases).[90] Further, having a care monitoring plan in place is recommended in current opioid users due to the risk of opioid-induced dependence, addiction

and other complications (eg, constipation, sedation, depression).[90] Some news articles reported opioids were often prescribed as a second-line treatment due to the inability to access specialist pain services (Table 2), this may have contributed to the lack of understanding patients have in regards to best practice care.

The media representations of pharmacological strategies were dominated by personal experiences of people with chronic pain reporting positive benefits from using medicinal cannabis. This coincides with the consideration of the New Zealand government to change legislation surrounding access to medicinal cannabis products.[91] All personal experiences in the media focused on the positive effects of cannabis with fewer side effects as compared to opioid-based analgesics suggesting that cannabis use is a safer treatment strategy to manage chronic pain in those using opioids. There is however limited evidence to suggest cannabis as a substitute for opioids[92] and a lack of high-quality evidence to support the use of cannabis for chronic pain.[93] This lack of evidence was reported in only a few articles featuring input from healthcare providers. Interestingly, there was no reporting on potential adverse effects of medicinal cannabis use especially for young people such as cognitive deficits, dependency and mood changes,[94,95] which may outweigh the purported benefits. Therefore, current media reports may not reflect evidence-based information about the clinical effectiveness of medicinal cannabis for chronic pain management. Readers have to be mindful of such information in media reports and consult their healthcare providers for management approaches that would best suit their chronic pain condition.

News media accurately reported that New Zealand is under-resourced for specialist pain management services and has a definite shortage of pain specialists. The UK recommends one pain specialist per 100,000 individuals, while in New Zealand there are only 12 full-time equivalent specialists, falling short of the population-based recommendation of 45 specialists.[3] Not only there is a shortage of pain specialists but also pain clinics in New Zealand. Media reporting also failed to emphasise the potential role for the primary care sector and other allied health professions (eg, physiotherapy, psychology and occupational therapy) in supporting people with chronic pain to adopt non-pharmacological self-management strategies. The prevalence of chronic pain in New Zealand is growing, but the capacity for patients remains inadequate, resulting in long wait lists to access healthcare services.[3] All these reasons may contribute to the difficulty for chronic pain patients to receive their diagnosis and best practice care.

There was an increasing frequency in coverage on chronic pain within New Zealand's news media. We can expect that this number may continue to rise due to chronic pain becoming increasingly relevant with the current cannabis bill discussion,[91] and increasing prevalence with New Zealand's ageing population.[2] This study emphasises the need for New Zealand healthcare providers to be cognisant of the potential for chronic pain reporting by the media to challenge and change people's beliefs about pain mechanisms and shape patient expectations around management strategies. As few articles included healthcare providers' views, there is a role for experts to make themselves available to journalists to provide information about evidence-based treatments; and the potential need for public education campaigns with evidence-informed information about chronic pain.[20] Media guidelines are available for the portrayal of people with mental health issues in New Zealand to ensure that journalists provide a safe, accurate and respectful representation of this condition.[87] This idea has been developed by a New Zealand campaign "Like Minds, Like Mine" where a human rights approach was taken towards enabling people to be free of discrimination and their disabilities being represented.[96] A similar approach could be adopted for long-term conditions such as chronic pain, due to its high prevalence and impact in New Zealand. Further, journalists could refer readers to a wide variety of evidence-informed, quality-appraised, educational resources fostering pain self-management accessible to the New Zealand public via the internet.[97,98]

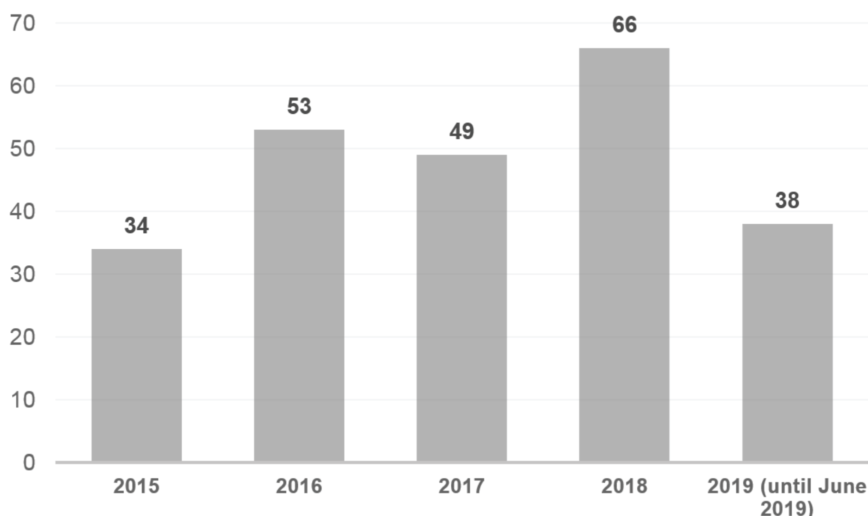
The strengths of this study include the coverage of all paper and online New Zealand news media. Due to the country's size it was achievable to include data from 2015, resulting in a large sample size. Independent parallel coding and coding verification added rigor to the analysis. Limitations include the limited generalisability outside New Zealand due to local socio-political considerations. Public debate around legalisation of cannabis before the general parliament election 2017, and subsequent reports on the Misuse of Drugs (Medicinal Cannabis) Amendment Act passed in 2018 influenced the frequency of the cannabis coverage in media related to chronic pain. It is also possible that in countries with higher rates of opioid prescription and unintentional overdose, media reporting may emphasise opioid risk more prominently.

This content analysis identified that chronic pain may have been represented in a somewhat unbalanced manner by popular news media in New Zealand. Many news outlets focused on the struggle associated with living in chronic pain, with a lesser focus on the ability to successfully manage pain and live a meaningful life. Further, the greater emphasis on pharmacological strategies over non-pharmacological approaches suggest that the reports failed to communicate that non-pharmacological strategies should be a key component of self-management for living well with chronic pain. Given the potential for news media reports shaping patient's health beliefs and treatment expectations, New Zealand healthcare providers and researchers can collaboratively work with the media to provide evidence-based information on both non-pharmacological and pharmacological pain management strategies.

# Appendix 1

| **Example of search strategies used for the review** | |
|---|---|
| **Database** | **Search Strategy** |
| **EBSCO** | Select Databases: Australia/New Zealand Reference Centre, Health Source - Consumer Edition, Newspaper Source plus, Newswires, WebNews.<br>1. (TX ((chronic* OR persist*) N3 pain)) AND ((TX chronic* N3 pain*) AND (TX Zealand*))<br>2. Limited to News and Magazines; 2015–2020<br>3. Include New Zealand newspapers/ Exclude Australian newspapers (by publication) |
| **ProQuest:** | 1. ("chronic pain" OR "persist* pain") and'' New Zealand*"<br>2. Source type: Newspapers, Magazines, Language: English, Location: New Zealand |

# Appendix 2



Frequency of news articles on chronic pain published since 2015

| Sources of articles included | | | |
|---|---|---|---|
| Newspaper/website | Primary | Secondary | Total |
| The Dominion Post | 15 | | 15 |
| The Press | 11 | | 11 |
| New Zealand Herald | 15 | 27 | 42 |
| The Daily Post | 2 | | 2 |
| New Zealand Doctor | 7 | | 7 |
| New Zealand Listener | 5 | 5 | 10 |
| Waikato Times | 2 | | 2 |
| Taranaki Daily News | 4 | 1 | 5 |
| Sunday News | 2 | | 2 |
| The Timaru Herald | 3 | | 3 |
| The Nelson Mail | 9 | | 9 |
| The Marlborough Express | 1 | | 1 |
| North & South | 3 | | 3 |
| Bay of Plenty Times | 10 | | 3 |
| Sunday Star Times | 3 | | 3 |
| The Southland Times | 1 | | 1 |
| Manawatu Standard | 2 | | 2 |
| Wanganui Chronicle | 1 | | 1 |
| NZ Newswire | 1 | | 1 |
| 1 News Now | | 3 | 3 |
| The Spinoff | | 3 | 3 |
| Stuff.co.nz | | 48 | 48 |
| Scoop | | 19 | 19 |
| Newstalk ZB | | 3 | 3 |
| Otago Daily Times | | 8 | 8 |
| Newsroom | | 2 | 2 |
| Voxy.co.nz | | 18 | 18 |
| RNZ | | 7 | 7 |
| Newshub | | 5 | 5 |
| TVNZ.co.nz | | 1 | 1 |
| Whale Oil Beef Hooked | | 1 | 1 |
| **Total** | **240** | | |

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