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**“Covid Free but not Free From Covid”**

**A Discourse Analysis Exploring Radio Media Talk of Long Covid in Aotearoa New Zealand**

A thesis presented in partial fulfilment of the requirements for the degree of

Master of Science

in

Psychology

At Massey University, Wellington,

New Zealand.

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2023

### **Abstract**

As Long Covid continues to perpetuate throughout the globe, the following study grasped the unique opportunity to research how Long Covid has been discursively constructed in the media. The media's influence in creating and circulating understandings of an issue have long been documented, and have implications for research, policy, and those affected with the condition. A novel, multi-level methodology combining Foucauldian-informed Discourse Analysis (FiDA) and Media Framing Analysis (MFA) was developed and used to analyse radio talk of Long Covid in Aotearoa New Zealand. The aim was to explore the interpretative repertoires, discursive practices, and institutional discourses within talk. All radio broadcasts available online that included a reference to Long Covid within a 26-month period (December 2020-January 2023) were obtained on which the FiDA-MFA method was performed. The analysis produced two interpretative repertoires within which Long Covid was constructed as "Real and important" and "Not being addressed resulting in harmful consequences." Discursive practices within these interpretative repertoires emphasised the severity of the issues being neglected, and wider-institutional discourses were shown to offer power and credibility to speakers claims. These findings show the media representing LC as a legitimate condition, highlighting a need for better care and supports for patients. To date, this study offers a unique insight both nationwide and internationally and contributed to this important and valuable field.

## Acknowledgements

The following thesis has been a joint effort of many, and I would like to take this opportunity to express my gratitude. Firstly, I would like to thank my primary supervisor Don Baken whose amazing support and fantastic knowledge of research processes and LC/ME/CFS has helped me find new insights and kept me captivated by the topic. I have really enjoyed your calm manner and sense of humour; it has truly been a pleasure. In addition, I want to thank Sarah Riley for being an inspiration in challenging me outside of my comfort zone and encouraging me to conduct a very different type of analysis. Your extensive knowledge on discourse has been compelling. There is not an extreme case formulation in existence that can emphasise enough my gratitude for both Don and Sarah's unwavering help and patience. I also want to also thank Sally Wiggins, who although we have never met, has introduced me to the exciting practices of discursive talk. Between Sarah and Sally, I do not believe I will ever have a conversation, hear an audio, or read a text without being drawn into the wonderful world of what talk is doing as a social action.

Gratitude and thanks also goes out to my clinical work supervisor Kimberly Falconer whose support and encouragement has been incredible, and also to the Massey University Librarians whose advice was outstanding. The following thesis would not have happened without the amazing support from my loving husband who went above and beyond to support me, my mother's ongoing emotional support, and my late father's belief in my ability to achieve anything. Nor can I forget to mention my two beautiful children who give me the joy and hope to live my best life, I love you unconditionally. Lastly, to my dear friend Judith, whose daily conversations of support and encouragement got me to the finish line. I owe you all a debt of gratitude, and it is one I will never forget.

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## Introduction

Long Covid is a serious health problem causing widespread physical and mental health issues, financial problems, and severe social impacts (Davis et al., 2021). Yet it is seen as a contested illness, with different understandings about LC produced through multiple discourses. An important site circulating these discourses is radio. The present study therefore aimed to explore the discourses that are circulated about Long Covid (LC) as an illness in Aotearoa New Zealand (ANZ) media. How LC is constructed is important because it can shape public understandings of its legitimacy. LC was originally not recognised by the medical establishment and continues today to be a contested illness in some circles. LC's construction also affects how people experiencing LC may be treated by others, such as healthcare professionals, government agencies and the general public. Stigma and discrimination already negatively affect those with contested illnesses (Froehlich et al., 2022; Whetten et al., 2008). Therefore, it is important to evaluate what and how information about LC is being circulated, that may influence people's perceptions of the condition, and those affected by it.

The following literature review evaluates research that has contributed to the construction and conceptualisation of LC, to inform a study design that will contribute to this valuable area. LC is a new phenomenon attracting much interest, and its problematic consequences for patients makes it a timely issue to study. Various topics of the literature will be reviewed in five sections including LC's background as a disease, the online construction of its name, the physical, mental and social impacts, a comparison to a similar condition called Myalgic Encephalomyelitis (or ME/CFS), and an exploration of the role of media influence. Finally, a discussion of the research aims, rationale and justification for this study is offered, and the research question is presented.

## Literature Review

### Understanding Long Covid History and Symptomology

Long Covid is a nebulous and debilitating condition affecting millions of people worldwide (CDC, 2023). It has had many names over its short existence. These include Long-term effects of Covid-19, Long-haul Covid, Post-Acute Infection Syndrome (PAIS), Post-Covid Syndrome (PCS), Post-Covid-19 Condition, Post-Acute Covid-19 Syndrome (PACS) and PASC or Post-Acute Sequelae of SARS Cov-2 Infection (Choutka et al., 2022; Mardani, 2020; Nalbandian et al., 2021; Nath, 2020; Vehar et al., 2021; WHO, 2022). The review of the literature ensured attention was given to all eight of these names to maximise exposure to published research, but for the purposes of this study it will be called Long Covid (LC).

The illness emerged as a post-viral reaction to the pandemic of Coronavirus Disease (Covid-19). The disease was caused by an outbreak of the virus Severe Acute Respiratory Syndrome Coronavirus 2 or SARS-CoV-2 in December 2019 effecting hundreds of millions of people worldwide (Spiteri et al., 2020). In addition to causing almost 7 million deaths globally, the longer-term effects of this virus impacts survivors in ways that have been likened to having advanced cancer, stroke, and end-stage renal disease (Walker et al., 2023; WHO, 2023b). Moreover, LC affects people of any age and regardless of the severity of their initial Covid-19 symptoms (WHO, 2022). It is loosely defined as “the continuation or development of new symptoms 3 months after the initial SARS-CoV-2 infection, with these symptoms lasting for at least 2 months with no other explanation” (WHO, 2022, para. 2). LC can then be considered a secondary response to the initial infection.

Over 200 symptoms have been reported by people with LC, the most predominant ones include severe fatigue, cognitive dysfunction, and breathing difficulties (Davis et al., 2021; Walker et al., 2023). Other symptoms can include joint or muscle pain, gastrointestinal symptoms, loss of smell or taste, persistent cough, pins and needles, depression and anxiety, chest pain, heart palpitations, memory loss, dizziness, and sensitivities to lights, sounds, smells and sensations (O'Mahoney et al., 2023; Thaweethai et al., 2023). Fatigue has been suggested as one of the most dominant features of LC. Walker et al. (2023) found fatigue in those with LC was worse than patients experiencing anemic cancer, inflammatory bowel disease and the final stages of renal disease. Another way fatigue is experienced in LC is the commonly reported feature of Post-Exertional Malaise (PEM). PEM is a serious relapse of LC symptoms and a severe delayed fatigue response to

exercise, stress, or exertion, with the onset appearing anywhere between 24 to 72 hours after activity (Tanguay et al., 2023). This delay often makes it very challenging for people with LC to identify what triggered the onset and to plan any activities or events in advance.

In the context of LC being an emerging illness with potentially wide-ranging symptoms; researchers have focused on understanding and defining these. To achieve this, some researchers used social media data available online, while others used these platforms to recruit willing participants to research LC symptoms. Davis et al. (2021) used online surveys posted within LC support groups, Twitter and Facebook between September to November 2020 and analysed 3762 responses from participants across 56 countries. They found patients experienced up to 203 different symptoms, concerning 10 organs, which had a detrimental impact on people's lives and work. Many of these people had not recovered by 7 months and had been unable to return to work causing financial stress on top of their prolonged multisystem symptoms (Davis et al., 2021). While methodologically rigorous, there were three significant limitations to the study with it being conducted at a time when LC was developing. One being that that the study was conducted over a short-period of time (approximately 2.5 months) and second, it was conducted very early on into the pandemic. Thirdly, the criteria for inclusion in the study focused on those who experienced LC symptoms for over four weeks when the WHO criteria and definition for a LC diagnosis is at least 12 weeks. It is normal for people to experience symptoms for four weeks or longer, as part of their recovery from Covid-19. Despite this limitation, over 90% of respondents had LC symptoms for over 35 weeks, fitting more appropriately with genuine LC presentations.

Another study utilised LC support group members in a 2-wave quantitative study to assess severity of fatigue (Van Herck, 2021). The severity of fatigue for 239 participants was measured at 10 and 23 weeks, and categorised fatigue into physical, mental or a combination of both. This sample was largely female (82.8%) and while LC is reported to be higher in women than men, females were significantly more represented in this study. Severe mental and physical fatigue was present in 85% of participants, and while this decreased for some between the two timeframes, it remained highly prevalent (Van Herck, 2021).

Cash and Kaufman (2022) extended this research using a LC Facebook support group to obtain participants for a clinical trial testing nutritional supplements on LC and ME/CFS fatigue. They found the supplement Oxaloacetate reduced mental and physical fatigue in

ME/CFS patients by over 22% and in LC patients it reduced by up to 46%. These findings contributed to the construction of LC being similar to other post-viral illnesses (by grouping them with an ME/CFS cohort) and by LC being a condition possibly responsive to natural remedies.

Social media platforms Twitter and Reddit were also utilised to collect data discerning LC symptomology, again most of these were quantitative studies. Matharaarachchi et al. (2022) used association rule mining techniques and sentiment analysis to analyse 30,327 Twitter “tweets” to establish broadly the most prominent LC symptoms. Brain fog, breathing issues, heart problems, and fatigue were the most prevalent symptoms. Following these were flu symptoms, aches and pains and depression amongst others. Another by McWhirter et al. (2023) concentrated specifically on one symptom (brain fog) to establish what experiences people talk about when describing this symptom. They analysed for themes of brain fog in 1663 reddit posts using python. The study found phenomenological descriptions of brain fog which depicted problems with memory (forgetfulness) and concentration, fatigue, dissociative features, slowed cognitive abilities, communication problems, head pressure and fuzziness, and the need for excessive cognitive effort (McWhirter et al., 2023). While both studies gathered new information about symptomology, they lacked the rich narratives that could have been gathered using more qualitative methods.

Although qualitative studies capturing experience of symptomology were scant; some studies were conducted to gather narratives of those experiencing LC symptoms. For example, PEM in relation to LC was explored using data from 13 participants recruited from social media who participated in discussion workshops (Sas, 2023). The data was analysed using a phenomenological approach and found that people experienced challenges around the sense-making of their cognitive, physical, and emotional symptoms, and how they monitored their PEM triggers. Most participants used pacing strategies to self-manage fatigue. However, many were unaware of the value and importance of routine and planning daily activities to avoid a relapse with PEM.

Interpretative Phenomenological Analysis (IPA) was also used in another study, and although some symptomology was mentioned, findings were more that people experienced being exhausted, depressed or having low oxygen levels (Skilbeck et al., 2023). Further, they

focused more on social and mental health impacts, adjustment and mastery over symptoms, self-advocacy processes, coping and recovery.

While these studies all offered unique insights into people's experiences, there were very few available. This suggests quantitative methods have been prioritised to acquire more details on symptomology at a time when LC desperately needed a medical definition. Also, many of these qualitative studies still utilised social media for recruitment, missing patients not on social media.

### ***Classification of Long Covid***

Whilst the definitions, symptoms and categories of LC are consistently being reviewed and updated, these symptoms are currently clustered into what has been labelled as four distinct types of LC (Zhang et al., 2023). Type 1 refers to problems with the heart, circulatory system, and kidneys. Type 2 covers lung conditions, anxiety, and sleep disorders. Type 3 groups nervous system and connective tissue disorders with muscle pain. Lastly, type 4 refers to digestive and respiratory problems (Zhang et al., 2023). Patients can and often do experience a combination of more than one type. In ANZ, LC is split into two main groups "Ongoing symptomatic COVID-19" whereby people experience Covid-19 symptoms for up to 12 weeks post-infection, and "Post-Covid-19 syndrome" (New Zealand Government, 2023, para. 2). The latter is defined as ongoing or new symptoms since their Covid-19 infection that have exceeded 12 weeks and cannot be accounted for by another condition.

### ***Prevalence, Predictors and Duration***

Prevalence has been hard to measure with international rates of LC varying between 10-50% of those who had Covid-19 (Davison, 2023). An international systematic review of 194 studies found 45% of people who survived Covid-19 went on to have at least one ongoing and unresolved symptom (Jeffreys & Russell, 2023). They also found some patients had new symptoms develop months after their infection, as part of their LC presentation. European statistics suggest 17 million people residing in Europe may have had LC within the first two years of the Covid-19 pandemic.

Aotearoa New Zealand's statistics have been hard to attain and there are different estimations among researchers. Currently, across government and academic surveys, a range between 100,000 to 300,000 people are estimated to be living with the condition in ANZ, with some estimating as high as 22% of the population (Davison, 2023; Jeffreys & Russell, 2023; Tate, 2023). Of these, 85% are believed to be experiencing moderate to very

severe symptoms needing substantial support (Tate, 2023). Callard and Perego (2021) argue that international statistics represent a stark contrast between actual Covid-19 experiences and the initial advice that most Covid-19 patients would have mild symptoms and recover very quickly (Callard & Perego, 2021). For example, in May 2020 the UK Chief Medical Officer stated, “the great majority, probably 80%, will have a mild or moderate disease, might be bad enough for them to go to bed for a few days, not bad enough for them to have to go to the doctor” (Callard & Perego, 2021, p. 2). However, many peoples experience of Covid-19 was significantly worse than mild to moderate, and millions of people lost their lives. Further, there was no suggestion up to 50% of people might endure residual, long-term symptoms, or physical consequences.

Prevalence of LC may also be impacted by Covid-19 immunisation rates, although this is still a contentious issue. Some evidence shows that vaccination against Covid-19 does impact LC prevalence and can reduce the risks of people developing LC (Ayoubkhani et al., 2022; Notarte et al., 2022; Simon et al., 2021; Taylor, 2023). Other research argues vaccination only slightly or partially reduces LC risk (Al-Aly et al., 2022; Reardon, 2022). Most of these researchers commented on differing and inconsistent results and suggested that further and more robust studies were needed. Overall, a vaccinated person might experience milder symptoms, but still develop LC. The variant of Covid-19 people were infected with also influences prevalence. LC risk was higher for those infected with “wild types” such as Alpha and Delta, than those infected with Omicron (Antonelli et al., 2022; Hedberg & Nauc ler, 2023). Consensus has not been reached on other specific predictors for LC. However, some researchers found a much higher prevalence for LC in those already diagnosed with heart disease (Jeffreys & Russell, 2023). Others have found strong associations between LC and pre-existing asthma, lung disease, heart disease, smoking, obesity, and psychiatric conditions (Mogensen et al., 2023). Additionally, LC is also believed to be more common in women than men, and in those aged over 50 years-old (Mogensen et al., 2023). Most research suggests LC risk is not dependant in anyway on the severity of a person’s Covid-19 experience, and those even with mild symptoms or who were asymptomatic during their infection still acquired LC (Taylor et al., 2021). However, Merikanto et al.’s (2023) findings dispute this argument. Their study showed LC was more prevalent in those with more severe initial Covid-19 symptoms, particularly those requiring inpatient care for Covid-19. Finally, duration of LC has not been established owing to its

prolonged presentation and lack of treatments. At the time of this review, no studies had determined the duration of this devastating condition (Tate, 2023).

Overall, while the review of the literature found symptomology to be the most dominant theme, less researchers took into consideration how the condition is constructed outside of its symptom presentation. Additionally, as I argued above, much of this work was undertaken by users of social media.

### **Constructing Long Covid on Social Media: The Patient-led Creation of #LongCovid**

Long Covid is the first illness known to be coined collectively by those with the condition (Callard & Perego, 2021). In the absence of recognition, patients of this debilitating illness regularly took to social media to voice their frustrations over the lack of acknowledgement and treatment options, and to describe their symptoms and experiences. Online platforms such as Twitter and Facebook quickly enabled people with LC to gain a sense of belonging through finding empathy and support from members and talking online with other patients (Callard & Perego, 2021). In a short period of time, LC online support groups emerged to provide support to each other, whilst actively advocating for urgent responses to investigate the much-needed care and treatment for their symptoms. These platforms provided researchers with an abundance of free data to study LC. It also highlighted the usefulness of patient created online data. Although ethically questionable by some, being available in the public domain makes it free of the restraints of consent requirements, usually needed for research studies (unless prohibited by the group's privacy settings).

Utilising social media platforms, patients drew on the concept of "Long Covid" to construct the illness and develop a group identity (Callard & Perego, 2021). One study explored how LC patients mobilised to create a significant volume of subjective evidence about the illness online. By doing so, under the label of "Long Covid" they anchored the term in professional and public discourses (Roth & Gadebusch-Bondio, 2021). Drawn from research of digital self-advocacy in online patient communities; researchers proposed a combination of patient activism and internet advocacy collaborated in making the 'Long Covid movement' (Roth & Gadebusch-Bondio, 2021; Schermuly et al., 2021). Interestingly, this formed as an attempt to gain traction in promoting the awareness of LC and its severity. In addition, it is important to note that more recently tensions have emerged between the patient-led construction of LC, to officials in some countries recoinng LC as Post-acute

Sequelae of Covid (PASC) amongst other terms (Miyake & Martin, 2021). While Miyake and Martin's (2021) study has been detailed further below, the term PASC emerged in February 2021 by Chief Medical Advisor to the US President to medicalise LC.

In the absence of any ANZ literature on the topic, European studies were reviewed and found the emergence of "Long Covid" as a patient-made construct from as early as May 2020 in Italy (Callard & Perego, 2021). Another UK study states the first mention they found was in June 2020 (Miyake & Martin, 2021). Despite long-term Covid-19 symptoms being prevalently discussed on the media from February 2020, an actual term for the condition took longer to develop. This may have been inspired by a verbal reference to 'Long Haul' regarding prolonged Covid-19 symptoms on a Twitter video in April 2020. The use of hashtags in social media then erupted to create a trend of using the term #LongCovid from May 2020. In the US, the term 'LongHaul' did not appear on social media until mid-2020, and #Longhauler started early June 2020 on Twitter with links directly to Facebook LC support groups (Miyake & Martin, 2021). These interesting insights came from Miyake and Martin's (2021) article which used mixed-methods to analyse 1.38 million social media posts discussing Covid-19's longer-term symptoms. The large sample size was ambitious yet fit well with the quantitative component chosen. However, the term Discourse Analysis (DA) was used broadly, and no reference was made to which type of DA was used or their theoretical framework. Instead, they described it as thematic analysis, and took an inductive approach informed by discourse and sentiment analysis of emojis, words, and hashtags. While missing the depth characteristic of qualitative analysis, this was an innovative and creative idea that met the aims of the research in a time of urgent need for knowledge.

The study also found negative consequences arose for people with LC when a disconnect occurred between lived experiences of LC and what official health communications and research studies were saying about the condition. The results further explained that conflicting definitions of Covid contributed to people experiencing negative impacts, as well as fears of the potential harm the vaccine may have on those already with LC. Main themes of concern also surrounded the uncertain duration of LC, symptoms and diagnosis, emotional consequences and an absence of resources and support (Miyake & Martin, 2021). The research also had limitations in terms of only accounting for the voices of those who have access to digital means and the literal ability and desire to use social media

and want to make comments. This suggests the need to look at other ways people might circulate messages about LC, including to those without access to the internet.

To conclude, the above literature described how social media has been central in shaping understanding and public discourse of LC and for researchers to collect data and recruit participants for studies. However, this work omits many people who either do not use social media, or do not engage in commenting on posts. There are various reasons why, some people have financial, physical, mental, or cultural restraints that do not enable them to engage in social media, some do not by choice, others for privacy reasons. With LC known to also impact children and the elderly, it is important to consider the absence of their voices on social media. Some children are too young to engage, and many older persons choose not to, resulting in the data around ages of those with LC potentially being skewed (Coto et al., 2017).

Overall, social media is limited and is only one site of public discourse, with not everybody engaging with it or consuming it. Other more traditional broadcast media also play an important role in circulating ideas about LC, potentially with even greater reach outside of those on social media. Especially radio, given that most people have access to it whether traditionally or online, and it appears in many everyday contexts. Considering research already supports social media's pivotal role in constructing LC, other sources of information were then deemed appropriate for the focus of this study.

### **Physical, Mental and Social Impacts of Living with Long Covid Symptoms**

Another way a new illness is defined, constructed, and framed is by researching and publishing information and statistics on people's experiences of the conditions impacts and consequences. Many qualitative, quantitative and mixed-methods studies have begun this task and identified mental health problems, loss of functioning (and developing acceptance), employment issues, stigma and difficulty accessing care.

### ***Emotional and Mental Health Impacts***

Any condition causing pain or fatigue is likely to impact people's mental health and wellbeing, and LC is no exception. Depression, anxiety, and sleep disorders are just three of the most prevalent mental health consequences of LC with a higher prevalence in women compared to men (Fernández-De-Las-Peñas et al., 2021; Rudenstine, et al., 2022). It is believed these impacts are caused by LC's distressing symptoms (previously described),

interference with work and home duties, loss of activity and functioning and uncertainty of the future (Rudenstine et al., 2022).

**Anxiety, Depression and Fear.** Anxiety and depression (whether separately or comorbid with each other) are common experiences for those with LC and other chronic conditions (Rudenstine et al., 2022). People with LC report being overwhelmed by their limited and slow progress towards recovery (Samper-Pardo et al., 2023). They report having very low mood and sudden severe episodes of sadness because of the lingering and debilitating symptoms. The fear and uncertainty of the future, particularly how long the condition will last, and whether it will improve or worsen further has been reported to cause significant anxiety and anguish for some. For many, this surrounds the fear of reinfection and the risk of this worsening their condition “For us, catching it is no longer the problem. It’s the fear of what comes after that... for me catching it again is unthinkable, I don’t know how I would deal with it” (Samper-Pardo et al., 2023, p. 6). In addition to the situational stress, symptoms and limitations, some studies have found that the Covid-19 virus physically effects the brain, contributing to neural and central nervous system damage that potentially causes depression in some people with LC (Kumar et al., 2021). Chronic fatigue and chronic pain are also known to result in mental health issues, which compound health challenges for people.

Low mood in those with LC can be influenced by the guilt they feel because they are unable to overcome their condition and feel they are letting people down. Ongoing experiences of guilt are known to lower mood and are highly associated with depression (Luck & Luck-Sikorski, 2021). Some people’s experiences of low mood and stress resulted in despair and suicidal thoughts (Samper-Pardo et al., 2023). A substantial contribution to the field was a study by Samper-Pardo et al. (2023) which combined patient interviews and focus groups using 35 LC patients recruited from health centres in Spain. Their study evaluated lived experiences of discrimination, emotional wellbeing, and social supports. Using thematic content analysis and NVivo software they found LC patients experienced a low perception of their mood and wellbeing and experienced daily limitations.

A particular finding was that people experienced suicidal ideation from having to “Battle for their bodies” (p. 5). They found patients struggled to regain the life and control over their body they once had and mourned the loss of their previous life causing symptoms of anxiety and depression. One female patient in their 40’s who had LC for 20 months stated

“I also thought about dying... you start to think that you do not want to live like this” (Samper-Pardo et al., 2023, p. 5).

**Sleep Disorders.** Sleep is known to be extrinsically linked to good health and wellbeing (Chow, 2020). People with insomnia, disturbed sleep and shorter sleep durations report lower states of happiness (Zhao et al., 2019). Therefore, it is not surprising that a lack of good quality sleep lowers mood and energy levels, thus worsening LC symptoms, such as fatigue and chronic pain. It is also associated with lower quality of life in those with LC, with participants reporting worse sleep overall since their initial Covid-19 infection (Alzueta et al., 2022). This was over six categories of sleep satisfaction, regularity, timing, duration, sleep efficiency and alertness. Other research supports these findings, showing insomnia was a common feature of LC presentations (Merikanto et al., 2023). Depression, anxiety, and chronic pain are also known to impact sleep with the effect being bidirectional, causing restlessness, difficulty falling asleep, disturbed sleep and early morning waking (Oh et al., 2019; Nutt, et al., 2008; Smith & Haythornthwaite, 2004).

### ***Loss of Functioning and Reduced Activity***

LC can have a significant impact on people’s ability to function and be active. For example, LC patient scores for impaired functioning were similar to those experiencing Parkinsons disease and more severe than in stroke patients (Walker et al., 2023). Indeed 1-2% of LC patients are bed-ridden, having to live in a darkened room and be fed through a straw or wear noise cancelling headphones to manage symptoms (Boland, 2023; Davison, 2023). However, for others the impact of LC is mild to moderate. For example, they had to stop exercising or reduce hours at work owing to symptoms (Humphreys, et al., 2021; Lowenstein, 2021; Milliken, 2022). Research by Walker et al. (2023) suggests the strongest predictor of impaired functioning in LC is fatigue. Reduced activity is impacting people’s ability to exercise, socialise or do other activities that provide pleasure, enjoyment and enhance wellbeing (Walker et al., 2023). Concerningly, Walker et al. (2023) also determined that LC patients have a lower quality of life than those with stage 4 Lung Cancer (Walker et al., 2023). Their study reported over 53% of LC participants fit the moderately severe category of functional impairment when assessed with the Work and Social Adjustment Scale or WSAS (Walker et al., 2023). The scale measured patients across five domains, assessing their ability to manage work and home duties, engage in social and private leisure activities and have close relationships. The highest scores indicating the most severe

functional impact was in domains of work and social leisure, with close relationships the least impacted.

Related research identified interesting narratives told through stories and poems that depicted people's struggles with their loss of functioning (Pearson et al., 2022). The aim was to explore alternative ways experiences of LC are expressed through embodied narratives. Their thematic analysis of 28 written or recorded creative narratives uncovered five themes of symptoms, time, healthcare experiences, identity, and social relationships. Some participants explored the temporal relationship that exists between their identity and narratives "Long Covid robbed me of my life and dreams, I am merely a ghost that can haunt the fringes of my former life" (Pearson et al., 2022, p. 2953).

Reduced functionality in patients also caused them to be unable to work or care for their children resulting in a diminished sense of purpose (Walker et al., 2023). Guilt is often expressed by those with LC as a result of the inability to perform their normal roles and provide for the family (Humphreys et al., 2021). One narrative sums up the changes in their family roles because of the condition "Parents sleeping, kids cooking, roles reversed for better or worse (p. 2953).

Long Covid's symptoms have also made work impossible for many. Work is known to boost wellbeing and provide people with a sense of purpose (Schaefer et al., 2013). With one study finding 98% of UK LC patients reported their ability to do their job had been limited owing to LC, with 78% having to reduce or alter their work, and 19% stopping work completely (Milliken, 2022). Another study surveyed 15,308 participants aged 18–69 who had tested positive with covid-19 at least 8 weeks beforehand. They found those with LC were less likely to be employed, and those who could work were more likely to do so part-time (Perlis et al., 2022). Narrative studies also spoke to the effects of LC on people's future and work, such as when a participant described "My life it slipped away. My work, my future, core beliefs, lost to this disease" (Pearson et al., 2022, p. 2953).

These studies highlight the impact LC has on people's ability to work, function, and socialise, thus effecting their sense of purpose and potentially causing financial stress and hardship. Very little financial support is available in ANZ for those who cannot work owing to having LC, further compounding problems for patients and their families (Martin, 2023). Leading researchers have argued on online news that a "systemic failure" has occurred in ANZ, with the government letting down those with LC in not giving them appropriate

healthcare and financial supports (Morton & Maher, 2023). One describes the government's efforts to extend health supports to people with LC as "at most, a lukewarm response" (Morton & Maher, 2023, para. 9). This research highlights the need for more to be done to better support those impacted by the condition.

### ***Adjustment and Acceptance***

Some researchers have also found more positive responses as people move to accept and adjust to their condition. A UK study on LC patients used semi-structured interviews and IPA to gather data from 18 participants (Skilbeck et al., 2023). The central themes were broadly around adjusting to the illness and the uncertainty, emotional and social impacts for patients. Prominent in the patterns of adjustment was the theme surrounding 'regaining control' which involved patients developing a sense of control over this condition by a) learning to advocate for themselves, and b) mastering the ability to self-manage their symptoms. This followed with the theme "moving forward" in coming to accept and re-evaluate what recovery and future coping looks like for them (Skilbeck et al., 2023). The study recruited a large sample for an IPA study, close to double what is normally expected, providing rich insights from a range of people (Liamputtong, 2020).

One major limitation was that all participants had accessed some form of psychological support owing to their illness prior to the study. This may have influenced some of the outcomes of the data, particularly around the themes of acceptance given this is a common theme in counselling those with chronic health concerns (Scott et al., 2016). Not surprisingly, other studies previously discussed (whose participants had not all undergone therapy) contradict these optimistic views of coping. Instead, they emphasise how people with LC experience low levels of wellbeing owing to ongoing negative symptoms, and the persistent limitations that have constrained their lives (Samper-Pardo et al., 2023).

### ***Stigma, Dismissal and Delays***

Stigma is a common negative experience for those living with contested illnesses (Froehlich et al., 2022; Whetten et al., 2008). Stigma is referred to as perceived or actual exclusion from social or institutional acceptance as a result of physical, mental, behavioural or cultural characteristics deemed undesirable by others (Pantelic et al., 2022). Stigma was often mentioned in studies as experienced by those with LC. This led to people's symptoms regularly being dismissed and untreated, their problems left invalidated and delays in

getting the interventions they needed (Au et al., 2022). Recruited through social media, Pantelic et al. (2022) devised a 13 question 'Long Covid Stigma Scale' exploring stigma and discrimination in participants with LC across three domains. The result showed 63% experienced 'enacted' stigma (actual overt experiences), 93% experienced 'anticipated' stigma (expected poor treatment or bias from others) and 86% experienced 'internalised' stigma (negative associations of LC are assumed as self-applicable). Experiences of stigma was found slightly higher in those with an official diagnosis of LC compared to those without. These rates were concerningly high, considering the literature on stigmatised illnesses indicates stigma causes psychological distress, reduces engagement in health services and negatively impacts recovery outcomes (Pantelic et al., 2022; Whetten et al., 2008). Complimenting this, Samper-Pardo et al. (2023) found most LC participants experienced stigma and discrimination from health professionals, social services and return to work agencies. The latter caused feelings of rejection as people were being discharged from their social security after 12 months of being sick. This was despite them being unable to return to their past profession owing to ongoing health battles (Samper-Pardo et al., 2023).

### ***Experiences with Health Care Professionals: Lack of Diagnostic Testing***

Despite many studies highlighting the symptoms of LC, researchers are still working on a diagnostic test to identify whether or not someone has the condition. Currently, diagnosis is generally made based on an evaluation of presenting symptoms, a previous Covid-19 infection, and an exclusion of other illnesses that could better explain these symptoms (Di Toro, 2021). However, many are unable to meet these criteria because they did not test when they may have initially had Covid-19 either because they a) were asymptomatic and unaware they had Covid, b) had symptoms and assumed it was normal cold or flu, or c) did not have access at the time to testing. This has left many people dismissed as not having LC as they had no evidence they had Covid-19 in the first place, although guidelines are changing around this (Srikanth et al., 2023). In addition, some General Practitioners (GPs) did not believe in LC's existence, whilst others acknowledged the condition, yet had not been advised by the medical bodies how to respond or what treatments to offer (Kingstone et al., 2020; Rushford et al., 2021). Subsequently, this led to patients with LC fighting for acknowledgement.

### ***Medical Gaslighting: The Disbelief of Being Disbelieved***

The ongoing stigma and medical dismissal of LC has led to what patients and patient advocates termed a form of ‘medical gaslighting’ whereby patients were being led to believe their illness was not real. Au et al.’s (2022) study used online surveys to gather data from 334 US respondents using an abductive qualitative approach to analysis. The first main theme involved dismissal of their illness, with participants often using the term “gaslighting” in their experiences with health professionals. The experience of gaslighting was defined as a “rhetorical weapon” creating a struggle between what is deemed real versus what is deemed imagined. Gaslighting was also reported in other studies, with a UK narrative study capturing the anger and frustration people feel “I’m very, very angry with quite a few GPs because I felt like they gaslighted me quite significantly” (Rushford et al., 2021, p. 6). Other UK research has patients describing how their GPs attributed all their LC symptoms to anxiety. One reported being told “There’s nothing wrong with your lungs. This is all anxiety. You must treat your anxiety. There’s nothing wrong with you” (Kingstone et al., 2020, p. 7). Similar instances left some with LC feeling not entitled or deserving of health care. A theme of ‘heavy and hard work’ emerged in Kingstone et al.’s (2020) study depicting the challenges in finding a GP who did believe their LC symptoms were genuine. One patient who was told by their health professional that there was nothing they could do to help stated “that frustrated me because it didn’t seem like they were being caring, it felt like I was nagging them and being a hypochondriac” (Kingstone et al., 2020, p. 7).

Additionally, this body of research also discussed the result of such dismissals in terms of a delay to get a diagnosis. These delays patients coined “diagnostic odysseys” which the medical literature suggests means the perceived failures from the medical institutions meant to help patients (Jutel, 2009, as cited in Au et al., 2022). Resultingly, delays in diagnosis meant patients possible treatments were deferred. This led to a general mistrust of doctors, not only because of a lack of treatments available, but owing to a perception that doctors failed to make the effort and offer concern to patients in order to seek effective symptom management (Au et al., 2022).

### ***Reluctant Pioneers***

Whilst most research discussed above has explored people with LC’s experiences with their Health Care Professionals (HCPs) and GPs, another study looked at the experiences of doctors as ‘Reluctant Pioneer’s’ having LC themselves (Taylor et al., 2021, p.

1). The qualitative study of 13 doctors found several shared themes, these included the challenges of making sense of their symptomology, using connections and their own medical knowledge to assist themselves and others with LC, feeling 'let down' by colleagues and their own GPs, wanting to help others while also wanting to be helped, and the challenges involved with combining a professional identity with a patient one. The doctors with LC began to recognise and acknowledge the hard work that goes in to accessing care and reported feeling more capable than before to support and empathize with other patients with unexplained or chronic conditions. Doctors with LC also expressed concern and fear that particular symptoms would gain negative perceptions from their own GP. They describe being selective with which symptoms they disclosed to reduce the chances of being dismissed or their symptoms being diagnosed as a possible stigmatising condition such as anxiety (Taylor et al., 2021). This study revealed insightful themes showing even GPs fear being stigmatised or dismissed by their own doctors and were concerned their symptoms would not be recognised as real. This has been a long-standing issue for many people experiencing contested illnesses, and another way LC has been constructed is in its comparison with one particular illness that has attracted much stigma and contestability.

### **Comparison with the "Sister Disease"**

Long Covid has been consistently compared in the news and literature to another post-viral condition, Myalgic Encephalomyelitis or Chronic Fatigue Syndrome (ME/CFS). Research has found many shared commonalities between the symptomology and experiences of LC and ME/CFS. ME/CFS is a debilitating and often life-long contested illness causing severe fatigue to approximately 45,000 New Zealander's and up to 2.5 million US residents (ANZMES, 2023; CDC, 2023). These statistics are also likely to increase as people with diagnosed LC often become reclassified as having ME/CFS after symptoms have surpassed 6 months (ANZMES, 2023). Global prevalence has been more challenging to gauge, however statistics from NZ Professor Warren Tate broadly suggest between 1-7 percent of the world's population have the condition (NZD, 2020). These staggering statistics are so wide-ranging as it is believed that approximately 90% of those with ME/CFS have not been officially diagnosed (CDC, 2023). ME/CFS symptoms similar to LC include severe and debilitating fatigue not ameliorated by rest, cognitive impairment (or brain fog), sleep disturbances, tachycardia, body aches and PEM (Choutka et al., 2022). Some with LC also

remain bed or house bound because of their symptoms, and it is proposed that at least 95% of patients never return to normal health levels (Hall, 2021).

Like LC, ME/CFS has been contested over the years owing to a lack of diagnostic testing available, and diagnosis needing to be made based on patient reported symptoms (Karfakis, 2018). While an official test still does not exist in ANZ, an Oxford University study recently had promising success in developing a blood marker test to diagnose ME/CFS. Xu et al. (2023) used Artificial Intelligence to analyse 98 human participants' blood samples. Their results showed 91% accuracy in determining the blood cell profiles of ME/CFS patients compared with healthy subjects, and 84% success with recognising condition severity as either mild, moderate, or severe (Xu et al., 2023). It is also hoped it could provide differentiation in diagnoses in the future between ME/CFS, LC and other conditions such as Multiple Sclerosis and Fibromyalgia.

Another major shift in research of ME/CFS was by ANZ's Professor Warren Tate and his team who discovered organic causes of the condition, with malfunctions being detected in the mitochondria (or energy cell powerhouses) in ME/CFS patients (Bezzant, 2020; Helliwell et al., 2022). Consequently, this causes the biochemical activity to be lower compared to healthy individuals, which forces the body into physical hibernation (Helliwell et al., 2022). It is suggested that LC is having the same impact on the body, and this post-viral neuroinflammation is occurring in both conditions (Tate et al., 2023). Along with other research, Tate et al.'s (2023) findings work towards ending the contentious 50-year-old debate that ME/CFS is a psychosomatic illness, argued for many years by UK Psychiatrists and nurses (Geraghty, 2016).

Like LC, ME/CFS has been given many names and constructs. ME/CFS is thought to have dated back to 1934 as a post-viral illness following the polio outbreak in Los Angeles (Karfakis, 2018). It was first coined 'atypical poliomyelitis.' The condition also emerged following a viral outbreak in the 1950s, and despite the correlation between the illness and a viral precursor; two UK Psychiatrists in the 1970s called ME/CFS 'mass hysteria' (Geraghty, 2016). The 1980s saw another direct link between ME/CFS and biological aetiology as a consequence of those infected with the Epstein-Barr Virus (Straus, 1985). Again, by the 1990s another UK Psychiatrist Simon Wessley continued to contend its psychosomatic status arguing it is maintained by a patient's dysfunctional illness behaviours and beliefs. These views led him and his colleagues in the 2000s to conduct Cognitive Behaviour Therapy

(CBT) and Graded Exercise Therapy (GET) trials to treat the illness. However, fifteen years later, studies reported little improvement for ME/CFS patients using CBT and 74% of participants found GET worsened their symptoms (Geraghty, 2016). Consequently, this resulted in a radical overhaul in medical guidelines to treat ME/CFS with GET no longer being recommended owing to the ill-effects with ME/CFS patients (Geraghty et al., 2019; NICE, 2019). Similarly, recent research has shown that people with LC also do not improve with exercise and instead need to learn pacing strategies recommended for ME/CFS patients (Wright et al., 2022). The study also found that some HCPs were using outdated guidelines on how to treat post-viral conditions and GET was still being recommended. In fact, it was the second most frequently recommended strategy for LC compared to pacing being the fourth (Wright et al., 2022).

Similar to LC, people with ME/CFS have also experienced stigma and discrimination. Consistent with other studies published in the last 25 years, research by Baken et al. (2018) found those with ME/CFS experienced more stigma than those with other health conditions. Their sample of 206 ME/CFS participants showed stigmatic experiences were linked to poorer mental and physical health, lowered executive functioning, and reduced satisfaction with their ability to engage in life activities and social roles. Other research had similar findings, maintaining that ME/CFS is still largely unrecognised by the general public and by HCPs, and patients are experiencing stigma and discrimination as a result (Froehlich et al., 2022). Research on GP attitudes of ME/CFS support the wide-spread disbelief and lack of clinical ability to manage ME/CFS presentations (Pheby et al., 2020). Pheby et al. (2020) found that up to 50% of GPs did not believe ME/CFS was a legitimate clinical diagnosis and those that did believe, admitted a lack of confidence in their ability to diagnose or manage the condition.

Research on media coverage of ME/CFS had mixed results with the majority remaining controversial. Some news articles frame the condition as biological and deserving of medical attention, whereas others suggest psychogenic causes recommending treatments consist of exercise or psychotherapy (Siegal et al., 2018).

Overall, this highlights the contested nature of post-viral conditions, and suggests that medical and public beliefs and attitudes will likely have also played a vital role in defining and constructing LC (Karfakis, 2018). However, LC has a significant advantage over ME/CFS in that it is anchored in and connected to a much larger viral outbreak of global

pandemic proportions (Covid-19). Therefore, it attracts much more media attention and thus increases its access to investigations into aetiology and pathology.

While striking similarities were present between the two conditions, and there is strong advocacy from researchers to class them as the same; a different debate emerged from the literature. A strong objection to the two conditions being in the same category emerged from advocates of LC. They argued against a synthesis of their condition with other diagnoses, owing to their preference to retain the separation of their illness identity (Perego et al., 2020). Some patients argued combining the two would invite the stigma already associated with ME/CFS (Byrne, 2022). Therefore, while many researchers hoped the commonalities would shed more light on ME/CFS causes, diagnosis and treatment, and increase the legitimacy of ME/CFS; many people with LC were reluctant to be tarred by the same stigmatising brush (Byrne, 2022).

### **Understanding the Role of Media in Shaping Public Discourse and Private Thought**

The media may have a profound impact on our ways of understanding, interpreting, and constructing meaning about the world around us (Giles & Shaw, 2009). Media can include daily watching of the news, listening to radio or podcasts at work, reading Twitter posts, or engaging in Facebook support groups, amongst others. What we are audibly and visually exposed to, may influence how we construct and make sense of our personal experiences and the experiences of others (Giles & Shaw, 2009). Media portrayal of contested illnesses may influence how members of the public treat those experiencing the illness, but there is some debate on the influential power of the media in shaping public perception.

### ***Media Influence Debates***

Media is believed by many to have agency and control in influencing people in society (Curran, 2002). This agency and control is constantly fought over between the three stakeholders that exist in media relationships: Governments, the audience (individuals), and media institutions (Dyring, 2020; Omojola, 2012). The subject that surrounds exactly how the media succeeds its influence over others (or if it even does) has been debated since the media's inception.

Early theories have suggested that the messages sent via media are received directly by the passive recipient, and wholly accepted by them. This "Hypodermic Needle Theory" was first proposed by Lasswell (1927) who explored the techniques around propaganda in

World War 1. By the 1940s, one theorist who argued against Hypodermic Needle Theory was Paul Lazarsfeld who in researching media impacts on elections determined the media was not this 'all-powerful' influence Lasswell suggested it was (Pooley, 2016). Lazarsfeld first posited that audiences had the ability to select and interpret their media consumption, and that it was key influential people that the media influenced most, causing a knock-on effect and therefore influencing the public through those people. In the 1960s further researchers concluded that little evidence showed mass communication and media affected its audiences explicitly, instead other factors and influences played a role in how it functioned as an influence on people and society (Moy & Bosch, 2013). Now, a more commonly accepted view is that the media has a dynamic relationship with its audience, and this is constantly evolving owing to the way we engage with media and technology.

Social media has added a new dimension to these debates. A significant shift in media occurred from 2005 with the introduction of faster internet speeds, enabling contemporary media such as streaming, social media and online news (Sykora, 2017). This gave audiences much more agency over how they participated and what they engaged with in the media, compared to traditional and broadcasted media (such as radio and newspapers). In 2008 things shifted again with the introduction of iPhones, allowing people to access media anywhere and at any time they wished (Wilmer et al., 2017). These two fundamental changes allowed the audience to transition from just consuming media, to engaging in it in multiple ways, with more control and agency in how they did so (Lee et al., 2023). To try and combat this shift in power dynamics, algorithms were installed within many media platforms to recognise people interests and to push more relevant material their way (Alvarado & Waern, 2018).

More recent literature has explored some of theories. The results of one study on the relationship between the media and perceptions of Covid-19 suggested support of Hypodermic Needle Theory. Ahmad et al. (2022) even found a perceived higher uptake on messages through social media compared to those circulated through traditional media methods. This was likely owing to the volume of people reachable online and the ease of responding. An important observation here, however, is that much of the media messages around Covid-19 were specific health information and often legal instructions put in place by the government (such as vaccine mandates and lock-down updates). Therefore, these messages and requests were expected to be received by a more interested and active

audience and taken up by the public more so than other messages that are spread over the media more passively.

The media has also been seen to be powerful in circulating social concerns, and in response has influenced government and political decisions. Drawing from communication literature, Lancaster et al. (2011) explored how Australian media influences others through coverage of stories of illicit drug use. They found four specific ways media influences its audiences: through agenda setting and defining the interests of the general public; using salience and selection to frame issues; shaping people's and communities' attitudes indirectly; and feeding directly into the decision making in political debates.

### ***Discursive Approaches to Understanding Media Influence***

Discourse analysts propose that we absorb media messages and discourses as they circulate around us by 'actors' (Riley et al., 2023). Discussed later in more detail, discourses are the practices we use in talk that construct the object we are speaking about (Foucault, 1978, as cited in Riley et al., 2019). Discourse analysts argue that language shapes our thought, and to be able to have an idea and communicate it to others, we need to put it into words. In doing this, we also draw on concepts in our language. Therefore, language is seen as the building blocks of thought, and discourse (which construct the object) shape our thoughts. For example, the concept of LC is not simply lying around, waiting to be discovered; rather that it becomes produced in how we represent it. Unlike the Hypodermic Needle model, we can draw on different discourses, so we do have agency to combine different ideas together, in new and original ways. The only limitation is that we are unable to think outside of discourse or language (Riley et al., 2019).

As theorised, discourses are circulated by actors or agents, such as media (Riley et al., 2019). They can be taken in visually and audibly from adverts and apps on our mobile devices and Foucault would refer to these as 'despotif' (Foucault, 1978, as cited in Riley et al., 2019). Media circulate discourses (or ways of understanding an issue) by providing some of the discursive milieu, within which people can think. We might come across discourses watching TikTok's and YouTube videos, listening to podcasts or radio discussions or just reading news articles or watching news on TV. These ubiquitous messages are on our billboards on our way to work, on the sides of busses, even on the radio at the hairdressers. When we are not exposed to them first-hand, they come up in our conversations, or we hear others talking about them, further constructing our sense of reality about them. These

are not things we are being told to do, instead they are the building blocks that allow us to shape thought and incorporate it into our ways of living, adopting them as part of our lives and sense of identity. This suggests that the power of media can be disciplinary, and we use a psychological basis to allow them to inform and influence our thoughts and behaviour. Researchers have argued that this type of power can be more powerful than the coercive or repressive power of being instructed to do something directly (Riley et al., 2023).

Considering these ideas, I would theorise my understanding of media influence as more nuanced than the unidirectional needle approach. Leaning on my understandings of social constructionism, discourse analysis and media influence I would propose: Media operates to circulate messages across countless mediums to intentionally inform and persuade its audiences (Giles & Shaw, 2009). With disciplinary power rather than coercive power, it shapes and influences others in the social construction of their realities, while anchoring itself amongst the other socio-historical, cultural, and political influences of our time (Foucault, 1977; Riley et al., 2023; Willig, 2013). Despite people's agency and ability to selectively think about ideas and evaluate them, the fact that people are exposed to media messages means that they are likely to shape our thinking. Even if it is to reject that thinking, they still offer us ways to conceptualise an issue. Especially with radio when people might only be half paying attention, these ideas might get incorporated into our thinking in a less deliberate manner.

### ***Media Framing Use in Media Research***

Over more recent years, news media researchers have been offered new means to allow for more a structured approach to analysing both news and social media through Media Framing Analysis (MFA). Media Framing analysts share similar views to DA, that media does not only influence, but shapes public understandings and socially constructs knowledge (Giles & Shaw, 2009). While no studies have yet used MFA to research LC, some have used other forms of Media Framing to study Covid-19. These offer insights into what limited media research has been conducted in this space.

Framing theory (which differs from MFA) suggests that the media are selective in what they choose to show their audiences, telling them a story of the world, known as a 'frame' (Poirer et al., 2020). One study by Poirer et al (2020) used an inductive approach with software to analyse Canadian news articles across 12 main media sources in the country. The issues were related to the crisis of Covid-19 specifically rather than a LC study

and analysed the texts with statistical methods. Despite interesting frames being uncovered, framing Covid-19 as most prominently an 'economic crisis,' 'health crisis,' or 'Chinese outbreak'; it lacked the more detailed and in-depth data that can be obtained in qualitative studies. Instead, it gave a broadbrush understanding of prominent framings, yet did not explore how these were discursively produced or connected to existing understandings (such as those that relate to contemporary institutional discourses).

Another study by Rooke (2021) analysed 12 streamed videos equalling 1,895 minutes containing far-right alternative media personalities' views on Covid-19. The rationale was that Far-right alternative media personalities might reframe certain aspects of risk in their efforts to circulate 'fake-news,' thus amplifying potential future risk in regard to the pandemic. The study transcribed the audio from 3-months-worth of YouTube channels featuring a prominent conspiracy theorist using the Social Amplification of Risk Framework (SARF). The framework assisted researchers to explore how the framing of risk information in the media can create broader sociopolitical impacts, thus encouraging new approaches in risk governance (Rooke, 2021). Software was used to identify 968 frames, of which 'certainty,' 'blame,' 'low trust' and 'uncertainty' were the most dominant, and they used no additional form of analysis beyond that. By not exploring how these frames were rhetorically presented, or the institutional discourses underpinning them, the knowledge produced by the studies was relatively limited. The only LC study found that took a discursive approach of LC constructions online was published by Calvi (2022). They analysed narrative accounts of those with LC and online journalists writing about LC. Unfortunately, this piece of literature could not be reviewed as it was only available in Spanish, further highlighting a gap in this research space.

### **Research Aims**

Long Covid is a debilitating illness with ongoing impacts. It has a unique history in terms of being a contested illness that was given legitimacy, primarily through public discourse on social media by those with the condition. Yet, while people with LC shaped original framings, LC soon became part of the wider public discourse and mainstream media outlets joined the discussion. These mainstream media outlets, in particular radio, have the power to shape public discourse, and thus public understanding. In addition, cultural, historical, political, and social contexts influence how illnesses like LC are constructed and the media likely has a significant influence in this framing. Much of the literature on

constructing LC relied on social media, either for capturing data or gaining participants for studies. However, to date, there has been no in-depth discourse analysis research on radio talk of LC. Nor in fact any studies on how radio media influences the conceptualisation and construction of LC in ANZ or internationally. This is particularly relevant owing to many people gaining their information audibly from radio whilst at work, in the car, socialising in public or while doing tasks at home; making radio an important medium through which public discourse of LC may be shaped.

Of the previous literature reviewed, the majority used written texts from social media platforms such as online support groups, Twitter posts and others. Transcribing and analysing radio offers a unique advantage for research. It should strike a convenient balance between refined and carefully written news pieces for publication, and peoples uncensored opinions like those found on twitter or Facebook. Radio often has ad hoc and unrehearsed dialogue which may offer people's more honest and direct points of view. While people are still likely to be more careful on radio than on social media; the radio includes a lot of verbal content usually removed from online news texts. Radio also offers the additional opportunity to observe and analyse the verbal interactions and discourses between people. This allows us to study what, how and why people are saying what they are, in socially constructing LC. Additionally, discourse analysis methods were rarely used for studying LC, nor is it generally used as a longitudinal approach. The strengths of Media Framing Analysis made an appealing case to use the two methods together, to establish what discourses are being circulated socially about LC which may influence the social construction of the condition.

The presented project aims to illuminate how LC has been framed and socially constructed in ANZ through audio mediums such as the radio news, discussions, and interviews. Of interest are the interpretative repertoires that are being circulated on ANZ radio, the discursive practices and subject positions that we draw on in talk, and the wider institutional discourses that underpin this communication. Overall, we want to evaluate the impact these messages could have on how LC is perceived and identify the discourses people have been exposed to that might influence their understanding and meaning-making of LC. It is also intended to capture how constructions of LC on the radio may have changed over time and move media analysis of LC beyond single time point analysis.

**Research Question**

How has Long Covid been discursively constructed on Aotearoa New Zealand Radio?

## **Methodology**

The following chapter introduces the qualitative approaches and theoretical frameworks that underpin this study. The research design is summarised before offering a rationale for choosing qualitative methods. The main theoretical framework is examined, followed by a discussion of the methods of choice, their core principles, strengths and weaknesses. This includes supplementary information to evidence the appropriate fit between these and the study's aims and research question. Procedure and ethics approval are discussed next, followed by an in-depth procedure for data analysis using Media Framing Analysis and Discourse Analysis. Lastly, ethical considerations and reflexivity sections conclude this chapter.

### **Design**

As outlined in the literature review, LC is a current, prevalent, and severe issue making it worthy of study (Tate, 2023). Given the importance of media in shaping understanding, the present study design aims to illuminate how LC has been conceptualised and socially constructed in Aotearoa New Zealand through the media of radio. Media plays a pivotal role in how people construct meaning, and radio is one form of media that many people gain information from while going about their daily routine (Giles & Shaw, 2009). Media Framing Analysis (MFA) was applied to a corpus of data retrieved from multiple radio stations and programs where LC was discussed in ANZ. These occurred over a 26 month period during December 2020 and January 2023. Data was systematically selected and contextualized within relation to the story, at a time when LC knowledge was constantly evolving. It was further contextualized within the wider media context of ANZ where radio is an important medium for circulating understanding.

Foucauldian-informed Discourse Analysis (FiDA) was subsequently applied to examine the following 1) the interpretative repertoires that represented patterns in how LC was constructed; 2) how these patterns were produced in interaction, for example through the rhetoric devices used, the subject positions they produced and within the wider institutional discourses they drew on, and 3) with what potential effects in terms of how audiences might come to understand LC.

The choice to use radio over online text articles was to capture the interactions between hosts and guests, alongside what information is spread over the radio media about LC. While online newspapers could have been used, I wanted to establish how things were

said on air that may influence listeners. Newspapers are renowned for editing out most of this information and do not capture the interactions in talk (Gibson & Riley, 2019). In addition, differing from news texts, radio offered naturalistic data. The term 'naturalistic' comes from there being a lack of direct influence or involvement with a researcher. However, it will have its own concealed influences affecting its sense of being naturally occurring data owing to the speakers knowing it will be publicly aired and recorded (Gibson & Riley, 2019)

### **Rationale for Qualitative Research Methods**

Qualitative methods of inquiry have provided some of the most interesting and insightful data available on psychological phenomena, social relationships, and social situations (Liamputtong, 2020). A purpose of this study was to take a discursive approach to establish how people make sense and construct LC. How language constructs reality is pivotal in discourse analysis. Therefore, I aimed to identify and analyse the discourses circulating on radio about LC. This explored how people use language as action to communicate their sense-making to others via the media. In addition, the interactional effects were observed, as well as the wider institutional discourses that underpin these accounts (Riley et al., 2023). A qualitative approach was therefore integral to the study, to explore how people navigate this new and challenging phenomena and communicate about it within their social worlds. A quantitative study could have collected numerical data on what people may have been hearing on the radio about LC. However, it would not have provided me the opportunity to indirectly observe and analyse the complicated interactions between people and hear the in-depth personal stories of those suffering or of those advocating for LC. Nor would more statistical methods have allowed me to uncover the language and discursive devices people use in talk to communicate how this illness has become understood. Therefore, qualitative methods were deemed most suitable for this study, and MFA and FiDA were selected to work in conjunction with each other to maximise the success of the research.

### **Theoretical Framework**

An integral part of research is how the researcher brings their ontological and epistemological views and assumptions to the research. Epistemology is a type of philosophy concerned with the theoretical underpinnings of knowledge (Willig, 2022).

Researchers adopt a particular epistemological position in research to guide the search for knowledge and understand the nature of knowledge itself, and how we can come to know it. This is different to ontology, which is concerned with theories of being, and what things exist in the world (Willig, 2022). A strong connection and acknowledgement between these philosophical underpinnings and the researcher's methodology of choice is known to strengthen research goals (Lopez & Willis, 2004), and enhance the rigour and significance of the research (Carpenter & Suto, 2008).

The main underlying epistemological approach for this study was Social Constructionism (SC). While the chosen methodologies of MFA and FiDA have additional epistemological components (discussed in subsequent sessions), SC was the overarching approach. Its epistemological standpoint offers a unique way to explore the relationships in which people construct their knowledge and understandings of LC while being situated and bound within the cultural and socio-historical landscape of ANZ. This aligned well with the chosen analysis of FiDA and the theoretical frameworks of SC, which both propose knowledge and reality is socially co-created rather than a result of internal conscious cognitive processes (Burr, 2015).

Burr (2015) outlines four key principles that underpin SC. The first surrounds the need to acknowledge and challenge that traditional knowledge claims are based on objective observations and measurements of the world. Therefore, there is a need to critically evaluate our taken for granted ways of knowing and consider other ways knowledge can be created (Burr, 2015). Secondly, that understandings are embedded in specific social contexts of culture and history. These contexts ultimately influence the development of shared meanings within a social group (Gergen, 1985). Thirdly, that knowledge is socially constructed, and sustained by social interactions and processes. Lastly, Burr (2015) details that construction and social action go hand in hand, and that constructions therefore can either maintain or exclude certain patterns of social action. This links well to the presented study, as radio circulates different ways to understand LC. Understandings are linked to action (for example, feelings of sympathy or not towards those with LC). Therefore, the importance of studying LC constructions on the radio, is that discourse provides ideas for how we can think about an issue, and how we think about an issue shapes what we can say, think, feel and do (Riley et al., 2019). Additionally, as we produce reality together through our social exchanges and processes, our reality is then

fluid, changing depending on who we engage with (Burr, 2015). A pivotal feature of social constructionism for this study is explained well by Burr (2015) in that:

“Our constructions of the world are therefore bound up with power relations because they have implications for what is permissible for different people to do, and how they may legitimately treat others (Burr, 2015, p. 5).”

Additionally, in Foucault’s work, we also analyse discourses with the “aim of grasping the conditions which make these acceptable at a given moment” (Foucault, 1991, p. 75). While this predominantly refers to the drawn-on institutions and subject positions that allow us to say what we can say, it can be enhanced by analysing audio, to examine and record the social interactions otherwise unobservable in online newspapers. Exploring how LC has been constructed would then allow us to recognise the development of how these shared understandings are being distributed over the radio to other social groups. In addition, it allows us to identify the power relations bound up in our constructions of LC, which may shape what people can do, and how people may treat those with the condition (Burr, 2015).

### **Methodological Approaches for Data Collection and Analysis**

Two methodological approaches were used to complement each other for this study. Media Framing Analysis (MFA) offered a structured and detailed method for searching, collecting, and organising media data, while the Discourse Analysis method Foucauldian-informed Discourse Analysis (FiDA) provided an analytic approach to specifically explore the discourses, language and ways LC was constructed and framed.

#### ***Media Framing Analysis***

The media has demonstrated significant power in its ability to shape government and political decisions and public discourse, while representing and circulating social concerns (Lancaster et al., 2011). In searching for a method to analyse this, MFA was found to be a relatively new methodology. MFA is concerned with how the media socially constructs, informs, and shapes public perceptions and understandings about social problems (Giles & Shaw, 2009). Developed from the 1993 work by Entman around Framing Theory, it proposes the media attempts to control and influence its audiences by intentionally selecting particularly salient pieces for publication. Further researchers were

inspired to build on this work, creating a systematic process by which to conduct an analysis of media framing. In this process, media stories are searched for and organised through specific patterns of selection, using emphasis and interpretation, and finally exclusion (Muir et al., 2021). This form of inquiry has shown that by analysing media; political, cultural and social shifts in society can be uncovered (Fairclough, 1995).

The framing of an issue such as LC arises in media by journalists (or radio hosts and guests) highlighting particular traits of a perceived reality about that issue. Consequently, the concerns about the issue create ‘framings’ which elevate its importance and prominence. The radio is then an excellent medium for these framings to be circulated to the public, especially since radio is often played in the background at workplaces, cafes, and hairdressers, as a few examples. So even those who generally avoid news items are exposed to information unintentionally. Media frames play a pivotal role in shaping public understandings of issues and are described as cultural phenomena rather than a cognitive one (Hertog & Mcleod, 2001). According to Entman (1993) “the concept of framing consistently offers a way to describe the power of a communicating text” (p. 51). This quote also steered me towards using FiDA in collaboration with MFA, owing to Foucault’s interest in power. Entman also proposed that by analysing frames, we can illuminate the specific ways people are influenced by the communication and transferring of information. This fit well with the proposed study, as I wanted to illuminate the discourses people are being exposed to about LC, that may be influencing their views and perceptions of the condition.

Only recently have researchers developed a specific template by which to conduct MFA. Giles and Shaw’s (2009) model for MFA emerged from the work of Van Gorp (2007) and Entman (1993). They recognised the need for a clear structure to conduct MFA and in 2009 produced a study guide for qualitative researchers designed particularly for psychological studies for the purpose of understanding news influences in modern culture (Giles & Shaw, 2009). Within this they also promoted the inclusion of other qualitative techniques. Accordingly, the current study aims to extend this literature, using a multi-level discourse analysis with MFA to address the weaknesses of MFA in relation to studying LC.

### ***Strengths and Weaknesses of MFA***

A key strength of MFA is the recently created step-by-step framework offered by Giles and Shaw (2009). They argue that some qualitative methods for analysing media have vague and ambiguous instructions, and what was needed was a more organised and

streamlined approach (Giles & Shaw, 2009). It's compatibility with other analysis methods is also a core strength, adding to its flexibility and adaptability. For example, an American thesis that combined MFA with content analysis researched the framings of media propaganda in radio broadcasts from the US to Cuba (Gonzalez, 2013). This was a novel way to use MFA to analysis radio broadcasts, with content analysis as an additional component to deepen the study to review the content for propaganda strategies. However, it transcribed and analysed a one-hour programme that aired in 2012, which significantly reduced the generalisability of results. It also analysed one point in time. Hence how I considered how this analysis method could be used more longitudinally, to observe changes in media framings of LC over a set period. Another strength is that you can alter MFA to fit with the study purpose, removing or changing steps where needed to maximise the effectiveness of the analysis. For example, MFA have steps looking the type of news story such as "editorial column" or "short feature." However, because I was focusing on radio, I had already narrowed down the medium, and therefore cut out this step to focus on other elements of discourse analysis. Similarly, MFA suggests identifying characters within the stories, instead I swapped this process for a more appropriate discourse analysis analytic of looking at subject positions.

While MFA is often used to analyse one point in time or one main event, it has been used to collect and analyse data over several years. For example, Muir et al. (2021) applied MFA across a 2-year period when looking at the effects of online shaming. They analysed 69 news articles and found that both serious negative consequences and the potential for positive ones were a result of online shaming narratives. The negative consequences constructed online shaming as a serious and destructive threat using with narratives such as 'tragedy' whereas the counter frame constructed it more favourably in frames such as 'overcoming the monster' (Muir et al., 2021). They found additional implications regarding the influence of the media on public perceptions about the topic, and for support for policy. A particular strength was that data collection spanned 2 years, using MFA in a more longitudinal way, emphasising its versatility. However, they did not use an additional analysis method to engage with the wider discourses, even suggesting in their own limitations that Foucauldian discourse or discursive analysis could have been useful approaches. Therefore, MFA can be useful in studying more longer-term approaches.

One weakness of MFA is the lack of theoretical frameworks when the method is used in isolation. Some studies seem to lack rigour and not mention any underpinning epistemology, with some even suggesting in their limitations that adding in another method such as Discourse Analysis could have benefitted the study to provide a deeper analysis (Muir et al., 2021). Another weakness is its regular use as a quantitative method. Researchers often used software to identify themes, omitting the rich data that can arise from qualitative studies and the nuance of having a reflexive researcher analysing the data (Poirer et al., 2020).

While MFA is often used to analyse the media in one country, it can and has been used across several. This can cause problems considering the different cultures and contexts that need to be understood and acknowledged for sensitivity to context to be achieved (Yardley, 2000). One study on reducing meat consumption using MFA across four different countries, acknowledged that this did not increase the ability for their data to be generalised worldwide (Sievert et al., 2022). Therefore, quality criteria for MFA research is to locate it in a single country contextualised within the broader cultural norms of that country, as it relates to the topic.

While Media Framing and Framing Analysis has developed recently, it can use different methods, from exploring narratives to content analysis. However, there remain significant limitations, including failing to engage with wider discourses, and using small data sets that do not track media framing over time. Therefore, more robust research on media framing requires a larger data set, collected over a longer period of time, and for a combination of MFA and a second method to be used in analysis to add depth to the study.

### ***Discourse Analysis***

While qualitative research methods offer an abundance of different ways to examine psychological phenomena, many of these are largely concerned with interviewing participants and gaining insight into their internal world, experiences, and perceptions. Since the 1950s many philosophers, sociologists, and communication theorists, amongst others became intrigued instead with the social performance involved in language (Willig, 2008). From which, an argument developed that words do not just state facts or opinions about ourselves and the world but perform social actions. Language stopped being a mere set of signals and symbols which describe the internal states of people, therefore explaining their external reality. Rather, language's productive power, that is, its ability to construct

our understanding of reality, became of interest, and an investigation into how it achieves specific social objectives began (Willig, 2008).

However, the dominant psychological focus on cognitivism left little room for this intellectual shift until the 1980s when Gergen's work on social constructionism took hold within psychology (Gergen, 1985). This occurred around the same time philosopher Michael Foucault passed away (Holub, 1985). Since then, a variety of different forms of discourse analysis have been developed and used within psychology. Discourse Analysis consists of various methods interested in what our talk actually 'does' and how it might construct something, or 'bring it into being' and mould our understanding about the reality of it (Riley & Wiggins, 2019, p. 233-235). The term 'discourse' refers to more than just language or communication. It is the entire remit of how we verbally and textually converse with one another and socially construct our realities in interaction and the consequences of these (Riley & Wiggins, 2019, p. 234). Put simply "the discourses people use are culturally available repertoires that structure what they can say, think, feel and do" (Riley & Sims-Schouten, 2019, p. 4). Discourse Analysis is used as a means to "decentre" the subject, to focus on what the talk is doing, rather than what a person is thinking (Riley et al., 2019, p. 2). Comparatively, other methods such as Narrative Inquiry or Interpretative Phenomenology focus predominantly on what is happening within the individual's mind, and their descriptions of their inner experiences (Riley and Wiggins, 2019).

Because discourses are said to structure the thoughts we have, in turn, it then structures our feelings and behaviours. As an example, a person with LC may hear the news that treatments for LC remain unhelpful. This might create thoughts and feelings around hopelessness and despair, and possibly reduce help-seeking behaviours by not seeing their GP for symptom management. Therefore, how LC is talked about on the radio is likely to shape how people view LC, experience the condition, and how others treat those with the condition. Discourse analysts also discount the idea that talk is a direct channel to cognition (Willig, 2013). Instead, they believe that when we describe our thoughts or beliefs, we are in fact taking part in a purposeful conversation whereby all those involved have a stake. The social context of the talk therefore needs to be understood to make sense of what people are saying (Willig, 2008). The idea is that language does not represent social realities but instead constructs them. In doing so, Discourse Analysts denounce an objective perception of reality to be studied, and rather emphasize how social categories are created and what the

results and consequences of these are in interactions with others (Willig, 2008). From this perspective, radio talk on LC can therefore be understood as a social interaction constructing the reality of the condition.

With no definitive method existing for using Discourse Analysis within psychology, two predominant methods were considered for this study (Macleod, 2002). These were Discursive Psychology (DP) and Foucauldian Discourse Analysis (FDA). These both offered an excellent way to analyse radio and can be brought together for a form of multilevel, integrated or synthesised discourse analysis (Willig, 2022). I therefore decided to perform a multi-level discourse analysis (FiDA) based on methods outlined by Riley and colleagues (e.g., Riley et al., 2023; Riley & Wiggins, 2019; Wiggins, 2017).

### ***Foucauldian-informed Discourse Analysis***

Foucauldian-informed Discourse Analysis (FiDA) is a complimentary blend of Foucault's principles, with some of the discursive practices examined in Discursive Psychology (Riley et al., 2021). Michael Foucault's poststructuralism of the late 1970s influence FiDA (Riley & Wiggins, 2019). Foucault was interested in the relationship between subjectivity and language, and these ideas have been applied in psychological research (Willig, 2013). While using some of the principles of Discursive Psychology, FiDA focused less on Conversational Analysis and instead developed social constructionist ideas by drawing on poststructuralist philosophy on the connections between power, knowledge, and truth. As a method, FiDA focuses on what people say, how versions of reality are constructed through written or verbal language, and the consequences of these for what people can say, think, feel or do (Riley et al., 2021). Foucault's (2002) description of discourse is that they are "practices that systematically form the object of which they speak" (p. 54). In relating to the proposed study, the object therefore would be LC. FiDA also includes considerations of the broader social contexts that support why and how people can say what they do and examine the institutional discourses people draw on in talk (Riley & Wiggins, 2019). In addition, subject positions are also explored in FiDA. These are produced within discourse and describe the different types of people or roles someone can connect with or inhabit that offer associated ways someone can speak or act.

FiDA also offers an alternative view on how we consider the role of power. Previous perceptions of power is its ability to be repressive, that is the idea that power is coercive and forces people to do things (Riley et al., 2019). However, this was re-visioned by Foucault

who suggested power is instead, productive. It can produce ideas about the world and about the people in it. In turn, this power then influences and shapes our thoughts, and our behaviours. Consequently, how we come to understand ourselves and others is produced through the lens of socially-shared ways of sense making. This type of sense making is frequently linked to institutional power. To make this more interesting, power in FiDA is also seen as diffuse. Power is diffused through discourses which circulate this power across multiple people and institutions, instead of it coming from one central source. Hence why FiDA analysts consider the mediums through which different discourses circulate, particularly when institutions or individuals claim to have expertise that legitimates certain discourses (Riley et al., 2019). In this method, society is viewed as circulating competing discourses of how an issue is understood. Therefore, FiDA is particularly interested in the various ways a problem is constructed considering these variations. This fit well with the proposed research question regarding how LC as a problem is being constructed socially.

There is also an additional understanding that our discourses change, and people move fluidly between these depending on our interactions (Riley & Wiggins, 2019). This also supported FiDA being an appropriate method to observe how constructions of LC may alter, both in the short term, such as across a conversation on a radio programme, and over a longer time period, such as the time-frame of the data collected in this study (December 2020 to January 2023).

While Foucauldian discourse analysts look at power dynamics in talk and the connections between discourses, social practices, and institutions; the DP roles of discursive strategies and rhetoric devices in talk also seemed important for this study. The method DP was developed by Jonathon Potter and Derek Edwards and came from conversational analysis and ethnomethodology (Willig, 2008). DP Analysts take small pieces of conversations and analyse the interactions at a very microscopic level. They also concentrate on the roles of emotions, identities, and other psychological concepts in talk, that assist people to manage their accountability and other social actions. Words, content, turn-taking as well as the structure and sequence in a conversation are analysed (Riley & Wiggins, 2019).

Conflicted between the two different DA methods, a multi-level discourse analysis, was chosen drawing on the process outlined in Riley et al. (2023) and Riley & Wiggins (2019) which itself draws on the work of Willig (2022). In their work using FiDA, they examine talk

through asking questions about what, how, and why, creating an analysis that focused on identifying interpretative repertoires and how these were produced in talk in interaction, as well as what wider discourses underpinned them. The incorporation of Foucauldian principles (such as understanding that discourses construct the object, shape understanding and draw on institutional framings) and discursive practices (which focus on the micro level of linguistic social interaction to explore what language is doing in situ) offered the ideal method for addressing the research question. It allowed me to both say what reality was being constructed, and its implications for the listeners in terms of their subjectivity in practice, while also examining how the reality was produced through dynamic interaction.

Drawn from Riley et al.'s (2023) FiDA approach, I therefore aimed to discover three core elements within the data. Firstly, interpretative repertoires were identified. These are the broad, common-sense patterns that create a version of reality (such as the 'what' in talk). Secondly, within the repertoires, I explore the discursive practices within talk. These look at how people create a particular reality and make things sound plausible (the 'how' of talk). Thirdly, within that we recognise the wider-institutional discourses (Foucauldian informed) that support that particular reality (the 'why') in talk (Riley et al., 2023; Riley & Wiggins, 2019; Willig, 2022). Linking this all back to the theoretical framework, social constructionism invites us to reconsider our taken-for-granted understandings about people, the world and society. In doing so, it encourages us to explore the social, political, economic, and moral institutions that maintain and are reinforced by our existing and unchallenged beliefs about human activity (Gergen, 1985). Using a FiDA approach supported this by determining which discourses are being drawn upon in the talk on LC and cemented my decision to use this as a suitable and appropriate methodology for this study.

### ***Strengths and Weaknesses of FiDA***

Foucauldian-informed Discourse Analysis offers a nuanced exploration of the particular versions of psychological phenomena, addressing a much-neglected area of reality constructed through social interaction (Willig, 2013). The emphasis on the discourses that circulate and inform our understanding offer a very different style to traditional psychology in analysing and reporting data. The added lenses of seeing the world with subject positions, power dynamics and recognising the institutions we draw on to make real our claims, offers such variety into what may emerge from the data (Willig, 2013). Another strength involves FiDA's advocacy for socio-cultural contexts to be acknowledged and

identified within the study, compared to some methods which seek to separate these, and try to study the phenomena in isolation. In addition, FiDA has the strength in the ability to re-formulate research questions, to step away from traditional positions of researchers seen as experts looking to measure some form of human experience or behaviour. Instead, researchers are viewed as experts in the significant range of what we can ask, thus leading to a variety of interpretations available to us (Macleod, 2002). Another strength of FiDA is its alignment with social constructionism and its incorporation of the use of rhetoric devices and discourses in how language performs action and influence in the media. This compliments the use of discourse analysis alongside MFA.

No method is without its limitations and FiDA has experienced its own opposition. It is an ambitious method which boldly infers a strong connection between discourses, human subjectivity, and social interactions, rather than solely being interested in the role of language in communication. Many have argued against the ability to theorize subjectivity based on discourse use alone (Willig, 2013). Others argued the mere idea of subject positions disregarded the emotional investments people make and their attachments to these (Willig, 2008). Some have challenged Foucault's revolutionary ideas around power as diffuse, although these have been strongly rebuffed (Jessop, 2004).

Another debate involves the discouragement of using the term 'discourse', with some suggesting the use of 'repertoire' in its place (Macleod, 2002). However, even repertoire has been met with disapproval owing to its associations with behaviourism. This was ameliorated with the introduction of the word 'interpretative' as a prefix, which some value as a more useful term when describing the patterns of discourses in research (Potter et al, 1990, as cited in Macleod, 2002). Part of this argument is due to the debates on the distinctions between common sense discourses (that might circulate taken for granted understandings not necessarily linked to an institution) and institutional discourses, such as those that can be traced to medicine, law, and other institutions. As such, I have used the term interpretative repertoires in the analysis of this study to describe the discourses that relate to common sense, wider patterns of talk, and the term institutional discourses where the antecedents of the talk can be connected to institutions.

Another limitation of FiDA is that it is generally a method used to analyse a single-point or single-event in time, and little research supports its use outside of this. However, considering the current study's design included data across a 2-year time frame, this

presented an opportunity to use FiDA in a unique way, offering a longitudinal aspect to the study. A final weakness of the method is its complexity for researchers to learn and apply. Compared to other research methods, FiDA is a multi-layered and complicated method, which when done correctly can yield excellent results, although is particularly challenging to learn as a novice qualitative researcher.

Overall, the two methods MFA and FiDA combined, were complimentary, aligned with a shared epistemology and able to be combined in ways to develop a novel and robust method for analysing radio talk of LC. Their dependence on gathering naturalistic data compared to relying on people's recalled accounts of events or experiences fit well with the research question. The absence of MFA and DA research on LC and the radio signalled a significant gap in the literature and thus formed the justification for the chosen methodologies.

### ***Using MFA and FiDA to Research Radio***

What the existing literature also does not address is how LC is constructed in radio news or other aired radio, by radio hosts and guests. Radio is an important resource in circulating messages about illnesses, as we are often exposed to it in our environments, rather than online media that we often have to be actively looking for that information online. An absence in radio research of LC (and literature on LC in general) was the lack of Foucauldian-informed Discourse Analysis (FiDA) or FDA in researching the condition. No studies appeared in any of the databases that specifically applied this method to LC interview transcripts or media texts. This was somewhat surprising considering Foucault is concerned with the 'real-world' effects discourses have on people and societies (Foucault, 1971). However, considering the limited research on LC and it being a new phenomenon it was an understandable find. While FiDA has been applied to some studies researching media, Critical Discourse Analysis (CDA) has been used more favourably by researchers studying Radio (Haig, 2008; Malek et al., 2017). Haig's (2008) study describes CDA as "a politically engaged form of investigation that seeks to transcend the scholarship-activism divide" (p. 46). It observes relationships between power and language and critiques the role of language and its contribution to inequitable social relations.

The absence of in-depth analysis of LC in the media literature and the lack of the use of radio for research showed a need to address a gap in the literature and find a suitable method combination. The review of MFA research showed that it was a good method for

identifying frames, but to date, it has not engaged more deeply with the discursive underpinnings of those frames. I believe this is important for understanding how these frames are heard because DA literature on media shows the importance of looking at rhetorical strategies, and more Foucauldian-informed analysis highlights the importance of connecting talk to its wider, institutional discourses. Therefore, it was crucial to produce a novel methodology, identifying frames that shaped how LC was presented in radio talk, as well as the discussive strategies and institutional discourses within this talk. The addition of FiDA would offer a way to synthesise a richer and more intriguing analytic style with MFA, that fit well with social constructionism and would allow radio media constructions of LC to be researched in Aotearoa over a longer time-frame.

### ***The Context of Aotearoa New Zealand Radio***

While many New Zealanders continue to spend more time watching standard Television than any other form of media, the statistics are changing. A 2021 study surveyed 1400 New Zealanders (800 by phone and 600 online) aged 15 and over about their media use (NZ On Air, 2023). Audiences in ANZ were found to watch an average of 118 minutes of TV a day, compared with 86 minutes of subscription video on demand (SVOD) services such as Netflix. Interestingly, radio came in a close third at 74 minutes a day (NZ On Air, 2023).

**Table 1**

*Summary of Aotearoa New Zealand Media Usage for the Year 2021*

Age Range	TV users	Radio	SVOD	Online Video
15-39	35%	36%	72%	82%
40-59	61%	48%	48%	58%
60+	83%	65%	22%	26%

*Note.* Adapted from NZ On Air (2023). SVOD stands for Subscription Video on Demand.

Across the three main generations of ANZ media users, 15-39-year-olds listen slightly more to radio (by 1%) than watch TV (NZ On Air, 2023). Of the 40-59 age range 48% listen to radio equal to the percentage of people who use SVOD (48%). Of those aged 60 and over, 65% use radio daily compared to only 26% online video and 22% SVOD. Another key finding in ANZ media statistics was that Radio NZ featured in the six most trusted ANZ news

sources, alongside TVNZ, One News, Stuff News, New Zealand Herald and Newshub. The survey also showed less than 4% of New Zealanders trusted social media outlets for their news (NZ On Air, 2023). The survey also found the overall daily reach of media was: Online video (59%), standard TV (56%), SVOD (51%), and standard radio (47%). An additional 9% was reported for online NZ radio. This would suggest the two combined reach 56% of audiences, in line with traditional TV, and higher than SVOD (NZ On Air, 2023). These revealing statistics provide insights into the ANZ context in using radio, and also support radio as being an important medium for circulating messages about LC. Creating an approach that combines what is aired on traditional radio and what is accessible on online NZ radio is therefore an important consideration for this study.

### **Procedure**

After reviewing the literature, and creating a research proposal, a data management plan was created alongside applying for and gaining ethics approval. As encouraged by Giles and Shaw (2009) a mixed MFA methods approach was used to collect and analyse data. The steps will now be covered in more detail followed by a section on the process of gaining ethics approval to conduct the study.

### **Procedure for Data Collection and Analysis**

This section describes the specific steps I took to collect and analyse the data, combining MFA with FiDA:

#### ***1. MFA Macroanalysis***

Using Media Framing Analysis (MFA) the initial macroanalysis step was conducted. After narrowing down the topic to the precise interest of LC framings, search engines were utilised to find data. Initially, google was searched to explore what radio stations existed in ANZ and recognise the types of programs they aired and how they were archived. Initially I wanted to collate, search, and analyse uninterrupted live radio as it had occurred over the last year. Only one radio station archived every minute of radio (24 hours a day), however this was only ever available for the past 7 days. I downloaded, transcribed and searched the last week of radio which was available in 15 minute downloadable segments, however LC was rarely mentioned. I contacted several radio stations who all agreed they either could not release saved audio to me, did not have access or it was not recorded. I also recorded hours of radio myself and repeated the process with little to no mention of LC. Google was then searched again for online news reports that had radio segments about LC embedded,

followed by searches of the National Library of NZ, Digital NZ, and Radio New Zealand. Only radio stations in Aotearoa NZ were considered, with the most common ones highlighting LC being Radio New Zealand, NewsTalkZB, and 95bfm. I developed search strategies of key words such as “Covid Sufferers,” “Long Covid,” “post-Covid” and “Long-haul Covid” adding in Boolean search operators and phrases to reduce unrelated results and maximise identifying content discussing the topic of LC (Shaw, 2019).

## **2. MFA Screening and Selection**

Over 700 results appeared in the initial searches, which were dominated by Covid-19 news items and interviews. To narrow further, I adopted the first microanalytic step in Giles and Shaw (2009) to screen for relevance within the found data. This was completed by screening the title and any available information (if present) about the radio post. The initial screening revealed for the first time the issue of ‘researcher frames’ which is a term used to suggest that process of coding and interpretation are themselves subjected to bias from the researcher. Rather than exploring what emerged, I overcame this by being specific in my criteria in ensuring all audios were screened for relevance (Matthes & Kohring, 2008). One major issue occurred where it was common for radio posts to be on Covid (but not LC). As the aim was to capture every radio segment about LC that was available online (and usually these were also previously aired live) in the last 2 years, further steps were taken for screening purposefully. I would listen to some or all of the radio post to ensure any discussion on LC was identified. If the radio post was more than 10 minutes, I would use transcribing software to automatically transcribe the radio post, then search for key terms and manually scan the whole document. While this proved more time consuming than scanning written text, it was an important safeguard to ensure relevant information about LC was not excluded from the study, thus adding to the rigour and completeness of the research.

An issue that occasionally arose in completing this step was the auto-transcribing software sometimes translated ‘Covid’ as other words like ‘covered’ so by manually scanning the document I could pick up these errors and include vital data. All radio posts relevant to LC were included from the first mention of LC in Dec 2020 to Jan 2023 capturing a data set spanning 26 months. In this initial data collection, 57 audios equalling 12 hours, 20 minutes and 32 seconds were retrieved. The amount of data found was an appropriate size for this study, and differing from news texts, it was also naturalistic data.

A data set table (See Appendix A) was kept with all details of the dates, duration, name of radio cast title, radio show name and radio station, and a direct link to where it was obtained. The audios were downloaded and stored on a locked lap-top with a coding system. These were originally numbered by the date they were found, and later re-numbered to date of airing. Audios that did not offer the option to directly download had to be recorded minute by minute with recording software while being played manually and were stored in the same location. As a back-up, all audio files were also stored on a flash drive. As the data is publicly available, there was no sensitive data that needs to be stored securely to protect people's confidentiality. Despite this, out of respect for the people on the radio casts, names were omitted in the presented extracts as much as possible in the analysis section. However, at times they did appear in the title of the extracts. These were transcribed verbatim into separate word documents and all stored on a password protected laptop, and also added as an attachment to its reference in endnote as a back-up.

### ***3. Transcription and Familiarisation***

All audios were transcribed initially using software (Descript). To ensure this was verbatim, each audio transcript was moved to Otter AI software, and was listened in slowed speed alongside the text to add in any removed filler words, utterances, and stutters. At this time, additional transcription keys were added using a simplified Jeffersonian method (Riley & Wiggins, 2019). This transcription notation was chosen over playscript or other forms as it allowed for audio cues to be noted throughout the transcript. For example, an up arrow ↑ indicated a rise in intonation, and a full stop within parenthesis (.) suggested a pause for a second or less (for full transcription notation see Appendix B). This allowed me to identify problems or certain actions in the talk later on using just the written transcribed document rather than having to re-search through the audio. Familiarisation to the data began here as I was exposed many times to each audio. Jeffersonian transcribing was an extremely time-consuming activity, despite the initial transcription being done via software.

Notes were taken throughout this time to help become aware of re-occurring patterns. After this step I discovered some radio posts had been added into different named posts and replayed on the radio, or despite having LC terms within them, actually focused on earlier effects of Covid-19. These were then omitted and all radio posts were renumbered via date of airing. The final amount of radio casts were 52 which equalled 11 hours, 8 minutes and 15 seconds.

**Table 2**

*Summary of Radio Channels, Shows, Types and Show Numbers Used in Final Data Collection*

Radio Channel	Names of shows	Type of Radio	Number of shows
Waatea News	Waatea News	Auckland's only Māori-focused radio	1
95bFM	The Wire, Natural Ange,	Auckland Student radio (semi-commercial)	5
NewstalkZB	Mike Hosking Breakfast, The Weekend Collective, Heather du Plessis-Allan Drive	NZME owned National Talk Radio	5
Radio New Zealand (RNZ)	Sunday Morning, The Panel, Nine to Noon, Our Changing World, First Up, The Detail, Lately, Morning Report, Checkpoint, News, National News, and Smart Talk.	Public-service National radio (crown entity and fully government funded)	41

*Note.* Taken from full data collection table in Appendix A

#### **4. Identifying Story (MFA)**

Combining Entman's (1993) 'problem definition' and Cooper and Yukimara's 'News peg' within each story, Giles and Shaw's (2009) next step of MFA is to identify 'the story' by relating each news item to specific sources of that stories' origins. Here, each radio post was checked it is was linked to key events, such as press releases of new Covid news, emerging research, or new statistics, and statements from key figures such as politicians and scientists. This assisted in recognising some of the changes in how LC was constructed over the time period.

#### **5. Synthesis with FiDA**

At this point, the following MFA steps are further replaced or adjusted to synthesis with FiDA. The steps of Character and Reader Identification are based on Entman's (1993)

methods, analysing characters within the stories is a valuable tenet of MFA when the topics are of interest to psychologists. At the macrolevel, this involves identifying key people (or types of people) who appear frequently in the audios such as the Drs and patients who talk about their experiences who maybe coined “experts” or “sufferers.” Then it moves on to who the audience or reader is being encouraged to identify with. Is it, for example, the people with LC, the families trying to support them, or the struggling nurses working long shifts in the understaffed hospitals. For a better synthesis with FiDA, this step was replaced with identifying Foucauldian subject positions within the talk (Riley and Wiggins, 2019). Visual cues such as pictures and captions are also an important part of this MFA step. Owing to an absence of these on radio, I drew on discursive psychology to analyse the nuances in the talk, such as rhetoric devices, discursive strategies, tones, pauses, and the discourses of the speakers.

Another MFA step called narrative form and analysis of language categories was also modified. Narrative Form usually occurs next in MFA by analysing the forms and structure of the radio pieces. Again, with the absence of imagery often analysed in visual news reports, the focus will be on exploring narrative conventions. Such as turning points in the conversation, casual inferences speakers may make and problems that occur in talk (Giles & Shaw, 2009). However, as FiDA is specifically concerned with discourses and what talk ‘does,’ the depth of this analysis will be greater. FiDA was chosen as the appropriate “analysis of language categories” step in MFA.

### ***FiDA Stage 1: Keyword Coding***

Notes were made in the left-hand side margins (LHS) regarding when the research questions topic was discussed (whether explicitly or implicitly). For example, Long Covid maybe referred to as “Long Covid” “post-covid illness,” “long-haul Covid” or “ME/CFS following Covid” or more indirectly such as “this condition,” “a disabling syndrome” or “the cause of debilitating fatigue.” The LHS was also used to note key words, concepts or issues that regularly appeared in the talk, as well as topics that were said with more emotion or emphasis. Next the data was reviewed and words in the LHS that defined the same construct were condensed and consolidated to one key-term for coding.

### ***FiDA Stage 2: Discursive Coding and Pattern Identification***

In this step the RHS margin was utilised to note precisely what the issues are, how they are being constructed in the talk, and why. This step occurs alongside step 1 and involved using the following questions from Riley and Wiggins (2019, p. 252):

1. “What facts about the world is the participant constructing? What discursive work do these facts do?”
2. What types of people (or ‘subject positions’) are in the text? What can they do or not do from these positions? What discursive work does the production of these subject positions do? Who is not there? How would the meaning change if they were?”
3. How is this reality constructed linguistically? What are the rhetorical devices? What is troubled, avoided or warded against?”
4. Why say this (part 1)?: What is the benefit to the speaker to say this?”
5. Why say this (part 2)?: What wider discourses support this talk? What kind of experts (and associated institutions) support these wider discourses?” (Riley & Wiggins, 2019, p. 252).

These was applied to a random sample of the data. I had already immersed myself fully in all the data numerous times when transcribing, repeatedly listening to the audios in slow speed and taking notes. Combining steps 1 and 2 with the audio immersion stage, several patterns emerged quickly that were contributing to the construction of LC. These could then be applied to the whole data set. These patterns (identified in the analysis section) included various topics such as LC symptomology, negative impacts, or experiences of stigma.

### ***FiDA Stage 3: Extract, Categorise and Consolidate***

All extracts that featured the patterns, were then collated together and organised into their categories in one word document (rather than printing and cutting out extracts). To ensure the origin of the extracts was not lost, the audio number and line numbers were attached to each extract. These were then condensed further and analysed thematically to look for the broader overall themes.

### ***FiDA Stage 4: Interpretative Repertoires and Question Confirmation***

Two overarching ways LC was being constructed emerged, which I conceptualised as interpretative repertoires rather than themes. These are viewed as the ‘building blocks’ people use in talk to construct particular versions of reality (Potter & Wetherell, 1987). The interpretative repertoires were “LC is real and important.” and “Long Covid not being

addressed is resulting in harmful consequences.” These interpretative repertoires were then systematically applied to the whole data set, to search for any other relevant patterns that may have been missed. None were found. The research question was re-evaluated in case I wanted to change it to narrow the focus for a tighter research topic however I chose to keep it the same.

#### ***FiDA Stage 5: Extract Selection and Write Up***

With the interpretative repertoires and the patterns that support them decided, the audio extracts were evaluated again. Some were selected to best illustrate the different ways the interpretative repertoires were constructing LC or ‘bringing it into being’ (Riley & Wiggins, 2019). The FiDA stage 2 questions were then applied to all selected extracts to illustrate how these conceptualise LC in this way, and identify the what, how and why in more detail for the study. Close attention was given to the discursive devices, subject positions and wider discourses being drawn on to construct LC.

#### ***Step 6. Generalisation and an Evaluation Over Time***

The synthesis of FiDA and MFA re-emerged here as both final steps collaborated together to finish the research with an evaluation of how the constructs have changed over time. These references were commented on as their topic was described in the analysis, rather than having its own section (the discussion however will discuss this in isolation). This was assisted with the choice for the data to be collected from the time LC appeared in the media and over the 26-month period. Generalisation is the last step of MFA from the work of Entman (1993), and analyses how an article or a subset of articles is implicitly or explicitly linked with the researched phenomenon. This involves a distinct separation between the ‘news peg’ (problem definition) and the wider frame being explored to identify these links and their functions. This ties in nicely with an evaluation of how LC is being constructed in the media and the functions and consequences of these discourses in the wider cultural, historical, and societal context. This analytic step explores the Kitzinger’s (2000) notion of ‘media templates’ in which a mythical-like status is attributed to the story from the audiences and the media source. These key events are then referenced in relation to further future events providing them with an innate explanatory power. This is an important step in this research as I explore links between the emergence of LC and its position and representation in the media over time, as well as how these discourses conjoin to influence ways of thinking and being in the world (Foucault, 1972).

## **Ethical Considerations**

The following section introduces the ethical principles and considerations embedded within this study. A brief summary of the initial ethics application process is provided. Following this, a full description on how I dealt with any conflicts or ethical concerns are detailed alongside preventative steps to mitigate risk to myself and others. The final section utilises Yardley's (2000) four main principles for conducting ethical research which include: Sensitivity to context, commitment and rigor, transparency and coherence, and impact and importance. Risk was evaluated in relation to this research and deemed a very low risk study as I was not recruiting participants but evaluating current audios available online in the public domain.

### ***Ethics Approval***

Ethical Codes and Acts were consulted during the ethics application process to assess and mitigate any concerns. These included: a) The Massey University Code of Ethical Conduct for Research, Teaching and Evaluations Involving Human Participants, b) The British Psychological Society 2021 Code of Ethics and Conduct, c) The NZ Copyright Act 1994, and d) Privacy Act 2020. A low-risk ethics application was made on 5<sup>th</sup> Dec 2022 and accepted by the Human Ethics Committee. It was also subsequently audited, passing the assessment it had a low-risk application.

### ***Informed Consent, Privacy and Confidentiality***

Informed consent was not required for this study owing to the public nature of the data. However, to protect the anonymity of those in the radio audios, names were replaced in the analysis section with "Host," "Reporter" or "Guest." This offered some privacy and confidentiality, despite it not being ethically required.

### ***Copyright***

Copyright risk was considered, and it was identified that this research falls under "fair dealings" of the Copyright Act and everything we transcribed would be publicly available online in the public domain. A list of radio stations was developed of whose audios I intended to transcribe and use in the research. We then reviewed an option of emailing the radio program hosts and/or producers, explain the plans and purpose of the proposed research and offer them an option to opt out if deemed ethically necessary. However, supervisor Don Baken enquired via email to an ex-radio host and the outcome of that was it was deemed unnecessary to offer an option to opt out. At the same time, I had emailed the

chair of the Massey Human Ethics Committee and got a response from the Southern B Chair, Dr Gerald Harrison who also agreed that being publicly broadcast did not require permission from the radio stations or anyone else so long as sources were acknowledged.

### ***Risk to Researcher***

The next three sub-sections relate to the Massey University Human Ethics Code of Non-maleficence, to do no harm to people involved in or implicated by the research (MUHEC, 2017). One concern that was discussed was risk to the researcher owing to listening and reading the stories and experiences of those with LC and the impacts of this on the researchers own wellbeing. This was deemed a very minor risk of harm and the risk was not deemed greater than what the researcher does as part of their daily life and employment as a mental health therapist. If this risk increased, the researcher has fortnightly clinical work supervision with clinical psychologist, and access to both research supervisors should further support be required.

### ***Risk to Others***

Importantly, I questioned whether any risk of discrimination to groups of people (such as those experiencing LC or towards the radio hosts/interviewees) could occur. This was also deemed very low, and the only concern was the risk of reproducing stigmatising discourses as the names of any radio hosts or guests would be omitted. Supervisor Sarah Riley explained our method explores the consequences of talk, therefore we will be showing how talk can create stigma, rather than reproducing it ourselves. This risk would be further mitigated while writing the thesis, to be careful to not uncritically reproduce any discourses we deem stigmatising.

### ***Beneficence and Justice***

Two other important principles outlined in the Massey University Human Ethics code are beneficence and Justice. The intended benefits of this study were to highlight how LC has been conceptualised and discussed on the radio (MUHEC, 2017). It is hoped by highlighting this, it may broaden our knowledge of the how it is represented in the media, learn more about the condition, its seriousness, implications, and the need of people with LC and their families to be able to access help. It also may encourage others to research the topic in similar ways. For Justice, it was determined throughout the study that the benefits significantly outweighed the risks or possible harms. The study was carefully constructed with data readily available to reduce harm on using human participants.

### ***Cultural considerations***

Despite this research not having a specific focus on cultural differences, it was important to respect and honour any mention of our indigenous population. As mentioned in the literature review, Māori are vastly over-represented in ANZ's mental and physical health statistics so it was likely reference to this population would occur. However, little mention of Māori specifically was found in the audios which created its own concern for this under-supported group. Any reference to Māori throughout this study was underpinned with principles of Te Tiriti O Waitangi (The Treaty of Waitangi).

Considering these principles, the most relevant one for the study was protection, which I enacted reflexivity, by being aware of how Māori can be vulnerable to dominant discourses and institutional practices. Therefore, I planned to be careful in my analysis of any reference to Māori. This allowed me to recognise that there was little reference made, and this absence was a notable problem given their representation in health statistics. Cultural consultation was not required for the study as I did not have human participants. However, I did make comments regarding the concerning absence of Māori representation in the LC audios.

### ***Sensitivity to Context***

To ensure sensitivity to context, the researcher undertook a qualitative research principles and theory paper prior to undertaking this research (Yardley, 2000). This paper had a strong emphasis on social constructionism and qualitative methods which allowed me to gain a solid grounding in the theoretical and philosophical underpinnings of my chosen methods. This allowed me to query our taken-for-granted assumptions about the world which currently shape our observations (Burr, 2015). Yardley (2000) describes that "language, social interaction and culture are understood by most qualitative researchers to be central to the meaning and function of all phenomena" and goes on to suggest we need strong awareness of the social and cultural setting the study occurs in (p. 220). Because of this, I chose to conduct the study with only data from New Zealand, the country I had lived in for the last 18 years and felt I had assimilated well into and trained in various contexts to learn its diverse cultural landscape and history. Additionally, I considered the ANZ context in relation to LC definitions and classifications from available literature, and in relation to ANZ radio, which highlighted this as an important medium through which ideas are circulated.

Another relevant component involved sensitivity to the context within the linguistics used when interpreting meaning and purpose. Yardley (2000) suggest that it is futile to attempt to remain neutral when observing and analysing interactions. The design of the study thus openly considered the researcher's characteristics of being a fellow patient with a chronic health problem, and a health professional working in the field (see reflexive section below for further details).

### ***Commitment and Rigour***

Yardley (2000) suggests commitment includes having prolonged engagement with the topic beyond solely being a researcher. My engagement and commitment date back to my early childhood when my mother was first diagnosed with Chronic Fatigue Syndrome. This was partly the inspiration to explore how its sister disease LC was constructed. In addition, I have engaged in the topic in the capacity of being a person with ME/CFS (Yardley, 2000). I worked diligently to learn and practice the skills in the selected methods, despite these being new to me, and emersed myself whole-heartedly in the relevant data. For rigour, I ensured completeness in the data by including every radio audio in ANZ that featured LC since before its inception, and used all of these in the analysis process, selecting particularly relevant extracts to illustrate talk (Yardley, 2000). I only excluded ones that either did not feature LC data or were duplicates. There were no other exclusion criteria aside location as I only used data that aired in NZ. The data set was adequate and ample, with over 11 hours being a significant amount of transcribed data for the use of FiDA and as mentioned covered every radio cast involving LC available on the internet that had been aired in ANZ.

### ***Transparency and Coherence***

For transparency and coherence, I worked hard to create a clear and coherent document to translate the study and its outcomes. I aimed to write in a way that made it available for all audiences to understand. I also took a significant amount of time researching methods and ultimately chose what I felt was an appropriate fit between the research question, theoretical framework, and methodologies with advice from my supervisors (Yardley, 2000). Transparency was also gained by detailing step-by-step the data collection and analysis methods and providing extracts for readers to also recognise the patterns found.

### ***Impact and Importance***

This study presented the only research available in this country (and at the time world-wide) on how LC is constructed in radio media, and it highlighted the various issues that emerged as a result of this significant issue not being addressed. It was important to me to address a gap in the literature and use methods for a topic that had not been used together in that way before. It is hoped this study may have an impact on the general public, on those with LC, their families, doctors, health professionals, as well as government officials, radio speakers and other researchers (Yardley, 2000). It also offered a novel and unique way to use FiDA successfully in a longitudinal way, compared to its general use for a single-event purpose. It also aims to hopefully encourage more researchers to do similar studies into this precarious and ever-changing condition.

### **Reflexivity**

Reflexivity is an integral tool in qualitative research which encourages researchers to pay close attention to their subjectivity in the process of conducting their study. Who we are, our cultural, social and historical background, alongside with how we think and feel can all affect our research data collection and its analysis processes. (Pillow, 2003, as cited in Shelton & Flint, 2020). I incorporated reflexivity into my research from the start of its inception. The reason I chose the theoretical framework I did, was owing to its correlation with my own beliefs as I wanted the theoretical underpinnings to match my own assumptions about the world (FitzGibbon, 2021). I also ensured I chose one that I had a solid understanding about to be sure I could be reflexive with understanding the meaning-making that occurs in interactions (Lazard & McAvoy, 2020). As Kenneth Gergen (1985) argues, social constructionists take the position that forms of life are created from the use of language. Accordingly, this fit well with the study of how language and discourses are used to construct LC in society over the radio.

I wanted to use my own experiences of living with post-viral illnesses as a drive and motivation to produce a good piece of research that would address a gap in the field, which on reflection was a good choice. The most challenging practical component of the analysis was applying simplified Jeffersonian to all 11 plus hours of the audios, taking months to complete. However, despite it not being a strong focus in the written analysis, it provided me with the ability to recognise trouble in talk, identity interruptions from speakers and see which issues were more delicate than others. Also, even though it seemed an arduous task,

it offered me the ability to absorb the data audibly, which provided me with additional means to recognise and evaluate interpretative repertoires.

Transcribing can be a very reflexive process. I needed to be accepting and aware of what would show up for me when listening to the dialogue and stories of those with LC. I allowed and accommodated the rise in emotion to reduce its impact on how I analysed the data, whilst also acknowledging this as part of the research process (Macleod, 2002). I reflexively utilised skills in Acceptance and Commitment Therapy (learned in my therapy trainings) to support myself emotionally. I also used my clinical work supervision to work through some of these experiences, as well as the health difficulties I was facing at the start of the thesis and learned pacing to manage brain fog and fatigue. At one point I was discussing with my supervisors why it was taking me so long to add the Jeffersonian transcriptions and I believe it was owing to my own cognitive symptoms slowing me down.

Another opportunity to be reflexive showed up in the levels of anxiety I experienced around grasping the concepts of FiDA. This was probably the hardest part of the research as it was a massive adjustment from the Phenomenological study in my social work master's degree, to Discourse Analysis in this study. Reflexivity was often relied upon to curb my desire to start interpreting what meaning people were ascribing to what they were saying, or how they were feeling at the time of the conversation. This was a steep learning curve for me and one that took a lot of practice and patience. I spent many weeks highly anxious about my choice of methodology and with the fortunate support of my two patient supervisors, I gained the encouragement to keep giving it a go, with the option to change if required. I was very glad I pursued this form of analysis as in the end found it very interesting and enjoyable.

It was also a challenge to choose which discourse analysis method to use. While reading about DP and seeing the in-depth analysis of talk it could offer, it looked like a fascinating way to look at discourse on radio. However, I felt it would not offer a broader opportunity to analyse how LC was constructed across many different discussion pieces, and across time. I turned to FiDA which showed great promise, especially in looking at power dynamics in talk and the connections between discourses and social practices and institutions. This also helped me recognise the need and potential to enhance my data by starting collection from the first mention of LC which dated back to December 2020.

During analysis I was careful to not be tempted to focus on the themes relevant to myself or I found most intriguing, to stay true to the method and discover the repeated interpretative repertoires among the data. I kept notes for each audio I transcribed for what I noticed and utilised sessions with my thesis supervisors for input into the process. As the thesis progressed, I would use some of my work supervision to celebrate my achievements and reflect on the challenges of learning FiDA. The experience assisted me to grow as a researcher and as an individual, by learning an entirely different method of qualitative research under the guidance of experienced supervisors.

## Analysis

The discussions of LC on the radio provided an abundance of explanations, stories and narratives that constructed and framed the LC. From which, the systematic analysis outlined above, produced two main interpretative repertoires. The first constructed LC as being real and important and was produced through four distinct patterns drawing on a science discourse, patient experiences of symptoms, experiences of stigma, and a comparison of LC with other illnesses. The second interpretative repertoire built on the first, constructing LC as real and not being addressed, thus resulting in harmful and devastating consequences. This repertoire was also produced by four patterns within the context of a significant lack of the following: an appropriate public health response, financial supports, medical treatments, and a lack of research grants. The sequence of patterns reinforced the significant issue of LC, and the damaging effects on people with the condition as a result of it being ignored, against a background in which LC was a contested illness.

### **Interpretative Repertoire One: Long Covid as Real and Important**

The first interpretative repertoire identified in the data was how people constructed LC as real and important. This occurred across four recurrent patterns. The first drew on a science discourse using authorised professionals in their field to be able to make the objective claim outright. They supported this with knowledge and evidence around reported symptoms, definitions, and physical health consequences of LC. It occurs first in this analysis section as it was the most common pattern across the entire data set.

The second pattern included subjective patient experiences of the conditions symptoms which offered narratives that evidenced the suffering and therefore strengthened the argument for the legitimacy and importance of LC. There were only a few of these in the data, although were supplemented with a regular and well-known person with LC interviewed several times throughout the time-frame. A third pattern introduced narratives and reported experiences of patients enduring stigma and discrimination about their symptoms. These allowed radio hosts and guests to construct LC as being real and important by highlighting the difficulty in having LC acknowledged by others. Lastly, a final pattern involved comparing LC with a similar post-viral illness that was only recently accepted as a genuine condition. This comparison became stronger over time as more research into LC occurred.

### Pattern 1: The Science Discourse

The science discourse was drawn on using researchers' and medical professionals' expertise on radio to be able to claim LC as a real and important problem. This pattern was sometimes constructed calmly, and other times passionately as many working in the field had personal ties to the illness. As time progressed, the sense of urgency and passion increased throughout the data. In addition, this pattern listed symptoms, definitions, and physical health impacts to attempt to give LC a medically valid existence. Initially LC symptoms and its definition were constructed as vague with professionals (as guests on the shows) struggling to define it and radio hosts sometimes questioning it. Over time it became a well-defined illness with over 200 symptoms and WHO classification (WHO, 2022), and this understanding also shaped the radio talk. One of the guests who strongly advocated for the legitimacy and acceptance of LC was interviewed about the reality of these symptoms:

*Extract 1: Audio 26. Long Covid: Sufferers warn of virus' long-term impacts. RNZ Checkpoint April 8, 2022. Lines 40-48. (H: Host, G: Guest).*

- 1 H: Dr (omitted) is part of a team of international researchers  
 2 investigating Long Covid and says, "It's real."  
 3 G: You know, we are calling on all health professionals and all  
 4 employers<sup>↑</sup> to be understanding of this inability to (.) have the  
 5 magic blood test to tell you that you're experiencing this.  
 6 These symptoms are very real<sup>↑</sup> you know,  
 7 it's not something good night's sleep is going to cure and  
 8 you can't <wish those symptoms away>.

In this extract, the guest argues for all professionals to believe in the reality of this condition, in the absence of conclusive tests being available to prove its legitimacy. She draws on science discourses through their research as well as medical discourses of symptoms, diagnostics, and recovery. The guest's introduction by the host as a "Dr" and "international researcher" may create the subject position of "Legitimate academic" positioning her as a valid person able to make these claims. This is within the discourse of being internationally recognised. The position is also promoted by the language use of being "part of a team" rather than a solo researcher, further persuading the audience of their

professional standing to make the knowledge claim that LC is real. Other subject positions evoked are health professionals and employers who are being asked to believe in and accommodate this illness, as well as the disbelieved sufferers of LC.

Various rhetoric strategies and discursive devices are used. For example, footing shifts and changes in pronouns with the guest changing from “you” (to refer to the host), to “we” (the consensus of research team) to “all” (professionals and employers) then to “you” and “you’re” (to refer to the patients), while also positioning the listener as a patient (Wiggins, 2017). This change in her orientation to the topic throughout the extract is one that becomes increasingly inclusive, until it includes everyone, while also highlighting the variety of people this illness is affecting. LC is also referred to as “it” in lines 2 and 7. This neutral third-person pronoun enables the host to refer to LC as a “thing” without giving it a definitive label. However, in doing so it gives it existence and reinforces her statement about LC being “real.”

Despite some specific claims being made about LC here, hedging is also used saying “you know” to manage their accountability and provide some distance from the raised issues and softening the directness of the claims (Wiggins, 2017). The comment “calling on all health professionals and all employers” highlights the urgent need for understanding by using repetition and extreme case formulations (ECFs). ECFs also emphasise that the symptoms are “very” real and are used alongside metaphors such as a “magic blood test.” Here, the guest is aiming to hold employers and health professionals to account and debunk the perception that LC is not real. Three-part lists are known to emphasise the factuality of an issue and have been used here in lines 6, 7 and 8, referring to LC symptoms as “very real,” can’t be cured by a “good night’s sleep,” and can’t be wished “away.” The list is also used here to indicate the end of the talk, as the guest slows down her speech to emphasise her final point. A rhetorical contrast also exists between the “magic blood test” and “can’t wish those symptoms away” positioning those in disagreement to her as in the realm of fantasy while arguing for the reality of LC. This talk also enacts accountability, arguing people with LC cannot be left to just sleep off their symptoms or wait for them to improve. Instead, a collective approach of support and understanding by health professionals and employers needs to occur for positive health outcomes. These wider discourses, subject positions, and discursive devices, together show the action in talk that the guest is constructing LC as something that is real, serious, and important.

The science discourse pattern also used symptom descriptions and diagnostic criteria to construct LC as real. Initially LC was a condition consisting of a few symptoms, engulfed in uncertainty around its effects, severity, and duration. Even towards the end of the data set collection time the uncertainty remained and was reproduced in the radio talk “there's lots we still don't know about this condition↑” (A46, Oct 2022, L3-4). In this example, referring to LC as “this condition” further cements the speaker’s uncertainty of its definition and extent. Hedging was used to allow the speaker to talk around the issue and not directly answer “There’s lots we still don’t know” while using the pronoun “we” shifted accountability from the person speaking.

Having symptom descriptions in the media may help spread awareness of LC to the general public. It may also help it to be recognised by health professionals or family members, but these were vague lists for a considerable amount of time “Common symptoms include fatigue, shortness of breath, cognitive dysfunction, but also others generally (.) having an impact on everyday functioning.” (A21, Apr 2022, L11-13). Over the year of 2022, LC’s conceptualisation transitioned into a classified and defined condition by the World Health Organisation with over 200 symptoms (WHO, 2022). However, the symptom’s listing rhetoric was vulnerable to vagueness as many of the audios showed. This vagueness was occasionally used as an opportunity to challenge the legitimacy of the repertoire that LC is real and important:

*Extract 2: Audio 18. Epidemiologist: Concerns Long Covid could become a widespread health issue. NewstalkZB. March 16, 2022. Lines 23-29.*

- 1 H: Can you pin it down to long covid?  
 2 The symptoms are vague aren’t they? brain fog, tiredness, fatigue.  
 3 I mean that's applicable to a lot of us,  
 4 its applicable to me most mornings↑ you get up at 230 in the morning↑  
 5 Do I have lo:ng co:vid↑ or I just do a breakfast show?  
 6 G: Well, there's an awful lot of, uh, of research  
 7 that's clearly going into that.

In this extract, the host starts off with the metaphor “pin it down” allowing him to argue his main point that it is vague and therefore not real. He goes on to cement this “fact”

with a three-part list to back up his argument. The host was then seen to dismiss LC in the footing shift to the symptoms being applicable to the consensus of “a lot of us” before changing pronouns back to himself. He seems to be normalising these symptoms in saying they are applicable to “a lot of us” and then listing everyday activities in his life. Therefore, he is positioning these “vague” symptoms as not really indicative of a medical condition. In addition to using the ECF at the end of line 3, he uses generalising words such as “most.” The host then uses contrasts in line 5 “Do I have l:ong c:ovid↑ or I just do a breakfast show?” comparing having LC over doing a breakfast show. He emphasises his speech in “lo:ng” and “co:vid” and uses minimisation “just do a breakfast show” to downplay the seriousness of the guest’s claim. Overall, his talk undermines the idea that LC is real and importantly linking the symptoms to every day normal experiences outside of LC.

The guest appeared to hear this as a rejection of LC being real and important, because she defends the argument with her science discourse of research. Additionally, in doing so, she does this through hedging that suggests difficulty in defending against this argument. For example, hedging and vagueness of “Well,” “There’s an awful lot,” and “going into that,” is used as well as a stutter indicating some difficulty in the talk. Drawing on the science discourse she disputed the hosts argument and uses the ECF “clearly” to emphasise there is much research happening to argue the claims the host has made. This indicates an attempt to counteract the hosts ‘it’s not real’ discourse, however there is evidence in the talk of difficulty in making this counteraction discursively strong.

Three subject positions appear in the data, the “lot of us” group of people who are thought to relate to the suggested symptoms of LC as part of normal fatigue and tiredness, an implied group who are not part of “a lot of us” who are assumed to not experience this, and the group of people with LC for which the research is exploring.

In addition to general discussions around symptoms, further extracts in the data showed how long-term effects of Covid and LC were causing various new health issues and exacerbating pre-existing conditions to further cement it being real and important. Reports of people developing blood clots, heart and lung disease, and diabetes were just some of the unusual ongoing conditions Covid had caused. One frequently interviewed person with LC explained “My dentist told me that I now have a higher risk of coronary uh disease, thanks to my gums have been weakened, thanks to Covid” (A2, Dec 2020, L67-69).

In another extract, a doctor discussed the physical effects of LC and the multitude of systems LC impacts:

*Extract 3:* Audio 24. Prof Jeremy Nicholson: the link between Long Covid and heart disease. RNZ Saturday Morning. April 3, 2022. Lines 93-104.

1 G: There are also gastrointestinal symptoms↑ there's liver dysfunction↑ there is new  
 2 onset diabetes↑ there's um, new onset coronary artery disease↑ Ah-  
 3 atherosclerosis↑ There's renal damage↑ there's neuro, I mean, it goes on. There's  
 4 almost [laughs] no organ system that isn't involved at some level, so you can have a  
 5 respiratory infection (.) and your body can fight it off, but the immune process is  
 6 involved in fighting that off >in some people not everybody< can cause these  
 7 systemic effects, which then persist for a long time either symptomatically, or (.)  
 8 asymptotically.

In this extract, the guest used descriptions of symptoms and organ damage to illustrate the 'real' impacts LC is having on the body, supporting this with scientific explanations of how the immune system responds in causing some of the long-standing symptoms. They go beyond a 3-part list to emphasis the many organs impacted in LC, listing at least 7 organs effected. Lists are used to emphasis the factuality of something in an attempt to make it appear more real (Wiggins, 2017). The rising intonation at the end of each part of the listing often indicates a person trying to emphasise the importance of an issue. In line 4 an affect display occurs, as the guest laughed to manage the psychological business of disbelief or surprise that a condition could impact the body so severely. He then goes on to emphasise this further stressing the words 'no,' 'isn't' and 'some' in making the assessment that just about every organ is impacted. The metaphor "fighting" is introduced to highlight the action of the immune system with a figurative reference (Wiggins, 2017). The contrast that this response occurs "in some people not everybody" is sped up in his voice indicating the speaker highlighting the importance of this quick addition to the commentary. There is interestingly no hedging in this extract, instead the speaker owns his accountability and making vivid and detailed claims about LC, backed up by his expertise as a professor and drawing on a science discourse. The result is a clear argument that LC is real and important.

One debate that occurred in the audios regarding symptomology, surrounded the argument that risk of getting LC was associated with the severity of the person's initial Covid-19 infection and symptoms. Most of the audios disputed this with guests saying "So that's the biggest misconception that really needs to be, uh, uh: corrected. Uh, Long Covid is not associated with the type of illness. There's absolutely no link to severity." (A16, Mar 2022, L21-24). Others said the same when directly questioned: Host "Is it linked to how badly [background noise] you had it↑ Guest: No↓ (.). So at the moment↑ we, there is no evidence to show that the worse you have Covid, the more likely you are to have Long Covid↑" (A18, March 22, L38-41). Others used statistics to back up their claim "The largest percentage of people that are suffering with Long Covid↑ never went near a hospital" (A16, Mar 2022, L26-28). Despite evidence to the contrary, the alternative argument did exist across that time period "I will be surprised if-if it's as common amongst the vaccinated, and the reason I will be surprised is because there is at least some relationship between the severity of the disease and the likelihood of Long Covid" (A12, Oct 2021, L228-232). Another is more direct in their claim "it will be related to the severity of the illness. New Zealanders were largely boosted when they, uh-had-uh, developed Covid in its latest surge, and that cut down the severity of the disease so we may see less Long Covid" (A31, May 2022, L51-56). However, the consensus was most researchers and professionals on radio believed there was no link. Overall, this pattern provided insights to how people constructed LC on radio as real and important. People drew on science discourses to argue for LC's legitimacy and importance.

***Pattern 2: Narratives of Subjective Patient Experiences of Symptoms***

Narratives from patients experiencing symptoms of LC offered a second pattern that supported the repertoire of LC being real and important. These stories had a consistent pattern of describing negative and challenging symptoms and often described distressing experiences likely to elicit emotional arousal such as empathy and sadness. Although these can play a crucial role in how media represent the framing of an issue, there were few patient narratives on the radio, and the majority of these came from the same person who was a renowned business woman well known in LC circles.

Some symptom descriptions were more specific than the previous vague lists "The chest pain, the heart palpitations, the dizziness, the (.) tingling. Your body's going numb in different parts" (A24, Apr 2022, L2-3). Many talked about fatigue being the most prominent

and debilitating symptom “Just being incredibly tired, incredibly stressed. I have, I know like four like instant coffees before I even feel like partially alive in the morning” (A26, Mar 2022, L22-24). This talk uses lists and ECFs to describe negative and challenging symptoms.

Extract four below is an example of this talk from a student battling severe cognitive features of LC, highlighting the impact on her memory:

*Extract 4:* Audio 25. Brain fog plaguing people after recovering from Omicron. RNZ Checkpoint. April 6, 2022. Lines 41-44.

1 G: My memory's gotten really ba:d. More like long term memory↑ short term  
2 memory seems fine. But like if someone were to ask me, ah (.) did we do this  
3 a couple of weeks ago, I would literally be like, I-I'm sorry, I don't know. I can't  
4 remember.

She starts by explaining her memory has deteriorated, elongating the words “memory’s” and “bad” to emphasis the severity of this issue. She goes onto contrast the difference between her short-term memory seeming fine compared to her long-term memory. Contrasts offer speakers the ability to highlight relevance in their talk by emphasising one aspect over another (Wiggin, 2017). She then offered a description of her life, with a narrative structure, providing a compelling story and uses first-person pronouns throughout to avoid uncertainty of who is accountable for this talk. Towards the end she used the term ‘literally’ to add emphasise the reality of her story and included that she would apologise for not being able to remember, suggesting a role of guilt and responsibility for not having the cognitive function she used too. Another guest details her hypothesis:

*Extract 5:* Audio 34. Long Covid researcher sceptical of study suggesting Omicron causes less disease. RNZ Checkpoint. June 23, 2022. Lines 41-46.

1 G: The loss of feeling from my, in my legs from my knees down↓ is astonishing↑  
2 [Laughs]. Private neurologist was doing a pin prick test, drew blood and I  
3 didn't even feel it. It's in my fingers as well. It's so bad in my fingers actually a  
4 couple of weekends ago, my hand got slammed shut in a ute tailgate↑ and I  
5 didn't even realize↑ it had happened↑ So three fingers were infected and one  
6 with a fracture↓

Extract 5 began with an assessment describing the loss of sensation in their legs and hands and they laugh at the end of this statement. Affect displays such as laughter are moments of invoked emotion within talk, and here the person is managing the psychological business of being in disbelief or even embarrassment this is happening to them. They provide an example to support the legitimacy of their challenges, with detail rather than vagueness recounting the experience with the neurologist. The guest also included the term 'private' neurologist, rather than just stating 'neurologist.' This could suggest one of two things, one that they are drawing on a health discourse that they have been a good "health citizen" by funding their own treatment and being responsible for their own wellbeing (Riley et al, 2023). Comparatively, this could be a statement that despite being this negatively affected by LC, they have not been offered adequate public health care and have had to resort to privately funded options. They go on to offer a first and second assessment regarding it being "in their fingers' using repetition to emphasise the issue (Wiggins, 2017). To illustrate this further, the person with LC offers a second story, this narrative producing a vivid and graphic account of their experience of getting a fractured and infected hand that emphasises the severity of their loss of feeling. Narrative structures and graphic details support the credibility of a person's account (Wiggins, 2017). This alongside active voicing is used to make things sound more plausible and real (Riley et al., 2023). As such, the pattern of describing patient experiences of significant symptoms in great detail works to construct LC as well and important.

### ***Pattern 3: Narratives of Experiences of Stigma and Discrimination***

These narratives involved patients and researchers (on behalf of patients) recalling experiences of stigma and discrimination from doctors and health professionals. This was another way LC was constructed as real and important, by revealing on air the extent to it not being believed, and the dismissive attitudes people experienced. A common term used to describe this was "medical gaslighting" from the health system. Throughout the data there were many reports of those who were not heard, validated or acknowledged as suffering from LC. One patient describes their disbelief in her medical professional's attitudes towards her "But I (.) am shocked at the way I'm dismissed and the arrogance in which doctors tell me "nothing's wrong with me" (A9, Aug 2021, L111-113). Even a renowned GP and radio guest heard stories of the same "and then we had plenty of stories

of people being gaslit↓ “I just wasn't believed↑” um, “they tried to tell me it was all in my head↑” (A52, Jan 2023, L145-147).

Long Covid not being seen as real posed a challenge for many, some feeling the need to be explicit and direct in their wording of the matter on air “I think these problems are serious and they're real, and that it's really unhelpful for people to be told that this is all in their head and they just need to get out more and-and do more exercise” (A9, Aug 2021, L120-123). The same guest later describes “They're being pushed back saying, we have no place for you. We dunno what to do with you (.) being gaslit↑ “we don't believe in Long Covid” They're hearing that from, from GP's still.” (A9, Aug 2021, L431-434). One immunologist and popular guest around LC issues explained the dismissive attitudes people experience and their effects to combat this through spreading awareness of LC:

*Extract 6:* Audio 43. Dr Anna Brooks on the looming crisis of Long Covid. RNZ Smart Talk. October 2, 2022. Lines 127, 134

1 G: The first phase of, of patient demand was, “please believe me↑” this, “I'm so, so  
2 sick.” I, I'm, I'm, “of course I'm ill” Because the, the, the diagnosis that was dished  
3 out too regularly was anxiety↓ “you're anxious, you're sick” and (.) sadly, it's still  
4 happening. We are, we are spreading awareness as much as we can↑ but I get  
5 email, after email, after email of being dismissed by their doctors.

In this extract the guest describes dismissive patient experiences with GPs and their despair in not being believed and instead being labelled as anxious. In lines 1-3 she uses reported speech of patients begging to be believed and validated as sick. Reported speech is used here to help produce a vivid account so her claims seem more realistic and attends to her accountability (Wiggins, 2017). Here, she is potentially trying to minimise her stake in the talk which is already shown as high owing to the category entitlements and the kind of knowledge she can share as being an expert in the field and a known advocate for people with LC. This is also accomplished using pronoun and footing shifts to manage the accountability of the talk and see when the guest is speaking, and when they are speaking on behalf of others or implying what others have said. This is a good example of discursive practices in understanding the different frames of reference and the various layers of these (Wiggins, 2017). The guest starts by speaking for herself, then draws on the voices of the LC

patients, returning to herself before the responsibility of the talk and issues turns to doctors. She then shifts again to 'we' referring to her team (or generally the advocates for LC) before finishing off owning the talk with speaking for herself again. The metaphor "dished out" emphasises the dismissiveness and mis-handling of clients' problems. In the footing shift in line 4 with the guest referring to "we" she also using repetition to promote her case that they are again taking responsibility and spreading awareness. Yet despite this, they are constantly getting correspondence of stories of dismissal from LC patients. This results in two additional problems. Firstly, people feel stigmatised and delegitimised resulting in many not asking to have their symptoms or problems helped in fear of being "found out" as having LC "We know of lots of people who just don't want to be involved with anybody on it, cause they're so scared of being found out" (A5, Apr 2021, L86-88).

Secondly, this dismissiveness is underpinned by both construction of LC as not real and healthism discourses that people should be responsible for their health and find more self-sufficient ways to manage it themselves (Sims-Schouten & Riley, 2019). These were commonly being circulated around this pattern with narratives that people, especially children and their parents were expected to be responsible for their wellbeing and wait this out, or "just get over it," which is a common discourse around health in ANZ:

There's been an a bit of an artificial political narrative around the fact that kids are fine and that they'll just get over it↑ Uh, but we know ... up to 7% of them will get long term, either cognitive↑ (.) or physical symptoms (A10, Aug 2021, L27-32).

One researcher explained that no one listened to patients until the complaints came from the more socially elite. They explain "that patient voice was really recognized when it came from (.) doctors↑ and athletes. The doctors who are saying, "oh my goodness, why am I being dismissed by my own colleagues that what I'm going through is not real." (A43, Oct 2022, L47-51) This draws on the value of people within a neoliberal system, and that value is intrinsically linked to the power they wield and their ability to spend. The more power, the more value and weight of their words, and the more influence they have. This would support why the LC voice was only believed, when it finally came from GPs and athletes. Overall, these extracts support the interpretative repertoire that LC is a real and

important problem and the need to reverse the stigma and dismissive attitudes about its legitimacy.

***Pattern 4: The Comparison of Long Covid with ME/CFS***

As previously shown, the interpretative repertoire of LC being real and important was often contextualised in relation to LC not being granted authenticity and patients facing stigma and discrimination. This has been a historical issue for previously contested illnesses having to prove validity to become recognised as legitimate health problems. A fourth pattern was connecting LC to an existing illness, in this case ME/CFS. Although ME/CFS was previously a contested illness, and therefore connections made might not legitimise LC; the radio talk used these comparisons to grant authenticity to LC. They did this through the argument that ME/CFS was a contested illness but now legitimised through scientific research. For example, when linking the two together “Although not a huge amount is known about it, it is considered to be similar in many ways to ME/CFS, also known as chronic fatigue” (A11, Oct 2021, L5-7). Again, the use of “it” to describe LC shows the uncertainty and unknowingness about LC as a defined problem but does verify it as existing. As time went on, confidence grew, and others were more definitive in their answer:

*Extract 7: Audio 18. Epidemiologist: Concerns Long Covid could become a widespread health issue. NewstalkZB. March 16, 2022. Lines 29-37.*

- 1 G: The main thing is that, u:m, clearly Long Covid follows a, uh,  
 2 a definite or a probable covid infection↑ () and then there's a, a process  
 3 clearly that clinicians go through to rule out other underlying conditions.  
 4 So at the moment, <it's, is a> (.) diagnosis of exclusions↑ so we exclude  
 5 other things↑ a:nd (.) therefore this is, is what we're left with and that  
 6 absolutely mirrors the um the definitive diagnosis of ME/chronic fatigue syndrome↓

Extract 7 talks to the process for diagnosing LC, and having to exclude other conditions, resulting in a condition that mirrors ME/CFS. They start with an assessment and by using “main thing” and “clearly” to isolate the most valuable and obvious component of diagnosis being a previous Covid-19 infection. The ECFs “absolutely” and “definitive” are used to emphasise her point that LC mirrors ME/CFS, and often this is also used to attempt to close off any alternative argument that maybe occurring (Wiggins, 2017). The use of

“definitive diagnosis” in line 6 may serve two purposes. One, to compare LC to a recognised condition to increase its own legitimacy. Two, to highlight and advocate that ME/CFS is now a “definitive” diagnosis. This could be because its own authenticity was argued for decades, and only recently molecular studies found blood markers showing a biological cause (Xu et al., 2023). The guest is therefore making a case that LC is following the same trajectory regarding acceptance that ME/CFS did, with it previously being disbelieved and now has been objectively proven. By leaning on the newfound legitimacy of ME/CFS, this talk therefore offers legitimacy in comparison with LC being so similar, supporting the repertoire of LC being real and important. Further cementing its legitimacy, are the wider discourses being drawn on. In this example these are medical and science discourses around diagnosis, symptoms, and classification which work to create validity through research. One radio guest highlights how ME/CFS has been neglected in terms of research “there's more literature (.) on Long Covid research than there has been in the last, you know, decades for ME/CFS. And that tells you a lot ↓ it's a-a highly neglected area of medicine ↑ and research ↑” (A22, Mar 2022, L462-465). This issue was sometimes constructed more passionately by those with a personal stake in the issue:

*Extract 8:* Audio 43. Dr Anna Brooks on the looming crisis of Long Covid. RNZ Smart Talk. October 2, 2022. Lines 56-64.

1 G: So the term Long Covid was coined by patients ↑ (.) in May, 2020 ↑ and people with  
 2 the well-known (.) post-viral illness, otherwise known as ME/CFS, myalgia  
 3 encephalomyelitis, were waiting in the wings going. “Hi ↑ We've always been here ↑  
 4 we knew this was going to happen” Decades and decades (.) of medical neglect  
 5 about what it means to suffer from a post-viral illness or a post-infection illness”

In this extract, the guest talks about LC being a term since May 2020, however patients with ME/CFS have been here for decades suffering with debilitating symptoms that have been neglected. They begin with an assessment about LC being a patient-named condition and go on to compare this to those with ME/CFS. The metaphor “waiting in the wings” is used as figurative speech to illustrate the performing role of waiting for it to be their turn to be seen and acknowledged. This is in response to the amount of time it has taken for ME/CFS to be recognised. The repetition of “Decades and decades” adds emphasis

about the severity of the issue. Reported speech, although imagined rather than a direct reproduction of someone talking poses to portray consensus and invoke that people with ME/CFS are in support of her claims (Wiggins, 2017). This manages the speaker's accountability and their stake in what they are saying. The script formulation "we've always been here" emphasises the regularity of the event of ME/CFS having been in the background for years waiting.

These extracts and many others all support the Interpretative repertoire of LC being real and important. Symptoms and definitions have gone a long way to advertise its legitimacy, drawing on science discourses. Patient narratives have provided audiences with examples of experiences and suffering to further circulate messages constructing this as a genuine problem. Comparing LC with ME/CFS also served well to assist in constructing LC as real, by drawing similarities with a condition that had similar problems becoming legitimised in the past, that had now overcome these. Yet these were not the only patterns found. A second Interpretative repertoire grew from the first, highlighting the destructive impacts LC is having on people and their families owing to a lack of supports.

### **Interpretative Repertoire 2: Not Being Addressed Resulting in Harmful Consequences**

Following LC being constructed as a real and important, a second reoccurring interpretative repertoire in the data surrounded LC not being addressed by our institutions and the results and consequences have been devastating. The ongoing absence of adequate help for people with LC has resulted in many problems which vary from "inconvenient to debilitating" (A45, Oct 2022, L10) and effected people's mental health and wellbeing and caused social inequities and hardship. Much of this was in the context of institutional failure, where a lot of the talk discussed the overwhelming frustration that the institutions expected to help were failing their constituents. The four recurrent patterns within this repertoire were 1) a lack of public health response, 2) lack of financial supports, 3) Lack of medical treatments and 4) an absence of research grants.

#### ***Pattern 1: A lack of Public Health Response***

Throughout the data there was consistent theme of frustration and despair that nothing was being done for those suffering with LC. The government were criticised for regularly promising health initiatives that would offer LC clinics and advisory groups but that very little of any substance came to fruition and the suffering only compounded. For example, "The Ministry of Health says it's establishing an advisory group on Long Covid... but

there's no indication on when we'll see some answers" (A26, April 2022, L101-104). Others agreed, saying the services that were being set up, were not government funded "At the moment, there is an absence of any cohesive response↑ so we are seeing some services being set up, but they're very ad hoc↑ They're predominantly in the private sector, which comes at a cost↑" (A51, Jan 2023, L51-54). This pattern was constructed calmly by some and more passionately by others. The following extract comes from an interview between a well-known person with LC and advocate (who has been pleading with the government to help those with the condition) and a radio host who have been discussing the lack of support from the state:

*Extract 9: Audio 9. Long Covid short on research. RNZ The Detail. August 12, 2021. Lines 441-430.*

- 1 H: I, I, I sense a little bit of, um, cynicism towards government efforts in, uh, in  
 2 this area that how [Guest laughs] how bad has the government support been  
 3 for Long Covid sufferers?  
 4 G: I like to, um, pre-empt this by saying that I'm very grateful for the  
 5 government's efforts of keeping our borders tight and safe↑ (...)  
 6 Um, I have been a, a grand big supporter the whole way through (.)  
 7 I potentially am feeling a little frustrated myself after um 17, 18 months of  
 8 (.) asking (.) pleading (.) for help and um, looking at a group of people where I  
 9 know mental health is at a crisis there (.) and who have been the most  
 10 impacted people of covid in New Zealand and have been (.) entirely ignored  
 11 (.) by the government. And I think that's really sad. They can't get ACC,  
 12 they're not getting any kind of, um, public health response.

In this extract the guest describes the lack of government support for those suffering with LC articulating the interpretative repertoire of it not being addressed. She highlights a group of people at crisis point who are not getting a response to their health needs. The extract begins and continues with some stuttering suggesting difficulty in what the host is going to ask about the government. The guest goes on to say they are grateful, orientating to the question (and the direct and implicit critique on air of the government) being a troubling one. She attempts to refute this initially before going on to agree, using various

discursive strategies to manage this. The guests affect display of laughter in line 2, provides an expression acting as a second assessment agreeing and upgrading what the host has suggested. It is also evidence of how she is managing the psychological business of being frustrated with the government's efforts or lack thereof (Wiggins, 2017).

The guest also manages her accountability in lines 4, 5 and 6 with the use of disclaimers, showing her support and gratitude to the government to mitigate and soften the impact of what she is about to say. These are enhanced by using the ECFs "very grateful" and an identity claim of being a "grand big supporter the whole way through" to further publicise her allegiance to the government. She also stays with the first-person pronoun throughout most of the extract in owning her talk. In line 7 she uses minimisation and vagueness with terms such as "potentially" and "a little frustrated" to downplay the seriousness of the issue. Additionally, this also softens her critique in the context of wanting to maintain her position of being a government supporter. She then contrasts this previous support with a vivid and descriptive account of her perception of the government in failing to help those with LC. The purposeful pauses in her talk accentuate her asking and pleading for help, and she offers a time frame of 17-18 months of this difficulty to support her argument that the government have not been responsive. She goes onto describe the mental health crisis of these people in the context of governmental discourse, for example being ruled by a government which often talks about mental health being a priority. She continues with a definitive statement using ECFs that they "have been (.) entirely ignored (.) by the government." This also draws on neoliberal and healthism discourses within which citizens are expected to be responsible for their health instead of being a burden on the state (Sims-Schouten & Riley, 2019). In addition, counter-hegemonic discourses are being circulated by LC advocates in an attempt to resist the power of the government and seek to reform or influence it to change and help people with LC (Felluga, 2015).

The use of detail and vividness in the speaker's account works to add credibility to her claims and the pauses again emphasise and reinforce her statements (Wiggins, 2017). She uses emotion categories and hedging "I think that's really sad" to articulate her emotions in response to her stake in these affairs, and give an evaluation of the situation. She also manages her identity in the talk through category entitlements. The guest is introduced earlier and belongs to the category of people with LC for which she speaks of. Combined with holding the subject position of "LC sufferer," she has the privilege to speak

on behalf of others with LC through their shared experience and understanding of what they are going through. This entitles her to the right to defend this group and advocate for them through the social action occurring in her talk.

***Pattern 2: Lack of Financial Supports***

A second pattern showed a lack of institutional initiatives for those suffering financially from having LC. There was a distinct lack of financial support available to people with LC from various employment and welfare institutions. Businesses were often under scrutiny for not supporting those with the condition. Even larger ANZ companies that were expected to be able to financially support their LC employees, did not “Being made redundant out of some of our (.) biggest (.) companies in the country↑ because they got sick through the job↑ and then being left out (.) to dry↑” (A5, Apr 2021, L104-107). Others also argue the lack of support resulting in people having to resort to using their earned sick and annual leave entitlement to cover them being off work with LC:

We don't think it's fair (.) that their lives should be made even worse because of something that is outside of their control↑ So yes, we've been really clear. We want to see more support↑ (.) for workers absolutely and things like having to use up their own sick leave first and their own holiday leave for long, Long Covid leave, we don't think is going to lead to long-term good outcomes for anybody (A26, April 2022, L93-100).

The extract implies, along with many other extracts within the data, that organisations and businesses should have had better initiatives for those suffering with LC. When these options had been exhausted, many turned to the government to be helping people when they were no longer able to continue their work. However, in a few of the radio shows, it was voiced that LC has not been categorised as a disability, voiding many people of financial help:

People have lost their jobs↑ because they're (.) too sick to work↑ and Long Covid isn't recognized as a disability and so that means that (.) the benefits that people with Long Covid are entitled to are means tested based on their partner's income↓ (A50, Jan 2023, L88-93).

Here the talk is constructing LC as not being addressed and those with the condition are not being permitted to the financial support they should be entitled to. Therefore, income protection seemed the only possible financial support for those over the cap for government benefits when assessed on joint income. Questions were raised on when and how the government might offer help:

*Extract 10: Audio 28, What happens if you've got Long Covid and can't work? RNZ The Detail. May 3, 2022. Lines 313-329.*

- 1 H: Gee (.) far out. Okay. So this is, um (.) this is a pretty big deal.  
 2 It's, it seems, so if you didn't have income protection insurance, then the <only thing  
 3 that would be available to you would be to go on the the sickness benefit↑>  
 4 G: Yeah. But if your partner works, then you won't qualify. (...).  
 5 H: Do we have any indication at all at this stage as to how the government might  
 6 manage, uh, the complications of, of Long Covid on, on employment↑  
 7 or has it been sort of radio silence in that area?  
 8 G: Haven't heard anything from the government yet.

Extract 10 argues that outside of the limitations of the sickness benefit, the only other financial assistance available to people with LC out of employment would be from insurance income protection they would have needed to take out prior to getting Covid. The extract starts with expressions to emphasize the seriousness of this problem and in line 2 the host uses hedging “it seems” as a politeness strategy and to avoid making a claim he is unsure about. He highlights with ECFs that without income protection the “only thing” available is the sickness benefit for that argument to be rejected by the fact people with a working partner are not likely to qualify for that either. This emphasises the barriers for people with LC getting financial help and draws on a legal discourse around citizen rights in terms of people having the right to access supports. The government is expected to have some form of protection for people, however this did not eventuate. Again, this leans on counter-hegemonic discourses, as an attempt to give agency to people with LC, who are portrayed as an excluded group from the hegemonic power wielded by the government (Felluga, 2015). The host goes on to ask “how” the government might manage this issue,

following the question with a metaphor of radio silence, emphasising the sense of abandonment and lack of organised response from the government. This question is met with agreement that nothing has been heard. The stutters throughout the extract suggest difficulty in the talk, mirroring the previous discussion around talking about the government on live radio. Cementing the issue, the same interview goes on to show even ACC cannot help with the host saying “But it's inevitable more people <will get Long Covid> and some of those people will have to take time off work. (...) what are they entitled to when it comes to ACC?” and the guest simply replies “Well, very broadly (.) nothing” (A28, May 2022, L240-248).

The pattern moves on to feature extracts of people with LC facing financial, employment, and welfare issues as a result of their LC problems not being addressed. Some people reported losing their jobs and could not make mortgage and bill repayments. On top of the debilitating and distressing physical symptoms LC causes, the rift of negative impacts have had a cascading effect for many. When describing his symptoms of LC left him bed and couch bound, one patient was interviewed by a reporter:

*Extract 11: Audio 51. Long Covid: Up to 300k NZers may have post-viral illness. RNZ Checkpoint. Jan 26, 2023. Lines 19-26.*

- 1 H: That forced him to leave his job in healthcare because of its physical demands.  
 2 While he's grateful for some financial support from work and income↑ he's had to  
 3 make some difficult decisions.  
 4 G: “I've had to sell my home↑ I've moved back in with my parents↑ in my mid  
 5 forties↑ and I'm living with my parents who are in their mid  
 6 seventies↑ and basically a lot of the time there having to help take care of me↑”

The above extract describes one person's challenges with getting financial support for LC resulting in him having to leave his job and sell his home. The extract begins with the host saying his symptoms (mentioned in the section prior to the quote) “forced him” to leave his job because he could not meet its physical demands. This positions the man as responsible for no longer being able to meet his duties. What they are not saying is that with adequate support from his employer or the government, his job could have been kept open while he recovered. In Line 2 they emphasis the word “some” support from work and

income, suggesting it was not enough if he has had to sell his home. The comment “he’s had to make some difficult decisions” contrasts with his agency and choice. Invoking agent-subject distinction here, we can recognise how the man’s agency is managed in the conversation (Wiggins, 2017). He is being characterised as having choice by “making difficult decisions” suggesting an agentic capacity to act on his own behalf and determine his behaviour or outcomes. However, in using the language “he’s had to” and “I’ve had to” frames him as having little choice, options or power in his decision making. This may be working to manage the accountability for the man losing his job and home actually being on the employer and government, rather than the man himself.

These insights suggest the radio reporter is subtly supporting the hegemonic status quo and drawing on neoliberal discourses that he is a consumer with agency, within an economic system, who has choice, when in this situation he has none (Riley et al., 2021). These neoliberal discourses also construct him as a good citizen, as he is taking responsible for his health and ensuring his family support him, to lessen his need to rely on government financial support or hospitalisation (Sims-Schouten & Riley, 2019). When he talks about his parents are now “having” to help take care of him (because his health is his responsibility) he is also talking within the limitations of discourses that help him make sense of his situation, bound within his social and cultural norms. However, in many other cultures it is completely normal for family members to take care of each other through illness, and the responsibility is shared within the group, and this serves as an example of how little Indigenous ways of being were represented in this radio talk data set.

### ***Pattern 3: Lack of Medical Treatments and Symptom Management***

This pattern relates to people’s symptoms not being addressed owing to a lack of medical knowledge from health professionals and limited available treatments. It should be mentioned that the previous interpretative repertoire that talked to stigma also creates a barrier for those getting help. However, for many GPs this was not the issue, and they simply did not know what to do, and had little support from medical councils in guiding them. As a result, patients were not offered symptom management. Despite no specific cure or treatment for LC being available, a lot was described on the radio that could be done to aid sleep, manage mood and pain, reduce inflammation, and treat vitamin deficiencies caused by LC. A lot of the problem however surrounds a lack of diagnostic testing “there is no diagnostic test↑ there is no test you can get when you go to the doctor to say >yes you

have Long Covid↓< and that's really, ah, you know, one of the big issues here↓” (A20, March 2022, L45-48). A renowned doctor on the medical council re-iterates this “I think it's an incredibly grey, difficult area. The problem with Long Covid and postural symptoms around Long Covid, you could attribute those to a number of other things, and this is actually gonna be the difficulty that we have” (A32, May 2022, L67-71). But one Immunologist and researcher advocating for better health care for LC patients argues we need to do better:

*Extract 12: Audio 43, Dr Anna Brooks on the looming crisis of Long Covid. RNZ Smart Talk. October 2, 2022. Lines 120-125.*

- 1 G: So what tends to happen is you go to your doctor or your tests come back  
 2 normal and therefore shoulders shrug. “We don't know what's wrong.  
 3 There's nothing wrong here” when the answer should be, “none of our tests are  
 4 showing the pain you're going through. We need to do better. we will do better”

She starts by using script formulations to highlight the regular experience people have visiting a GP with LC and add in a metaphor of “shoulders shrug” to provide a visual reference for the GPs not knowing what to do. She then contrasts the doctor’s responses with what she recommends they should say for better patient experience and outcomes. She uses “we” to refer to the group of GPs rather than including herself in the collective pronoun, and repetition to get her point across. The quote leans on a medical discourse of the diagnostic tests not being adequate as yet to show the pain people are experiencing. The comment “we need to do better, we will do better” uses modal verbs to imply a degree of obligation and ability by GPs to acknowledge and help those with LC. It also transfers accountability from the patients to the doctors.

Comments emerged from patients and family members that supported this pattern “You go, seeking advice from so-called professionals and they really don't have any advice to give you↑ It's, they've actually said (.) oh we don't really know what the long-term effects are.” (A40, Aug 2022, L24-26). Concerns over the duration of LC was rife in the data, with many saying they had no idea how long LC lasts. Others explain doctors just don’t know what to do “but there's reports where people have kind of gone to see doctors with Long

Covid and the doctors haven't really been able to help them in a way that they just don't know how to deal with these symptoms↑” (A29, May 2022, L39-43).

A lack of treatments have resulted in people developing secondary problems such as mental health issues. Within the data there were first and second-hand accounts of people with LC experiencing mental health problems like anxiety and depression as a result of their symptoms and issues not being addressed. LC also causes inactivity, reducing people’s ability to work, exercise and socialise; activities which usually help maintain good mental health. One interview compares mental health statistics from a year ago that “more than one in five covid sufferers went on to be diagnosed with a °mental illness within three months of testing positive, anxiety disorders and insomnia, dementia” (A14, Nov 2021, L4-7) they go on to report new research and say “it's worse than that, a third of people, a third of people who get Covid may develop disorders of some sort.” (A14, Nov 2021, L10-12).

In another extract, one radio guest expresses concern around suicide risk as people are so overwhelmed with their needs not being addressed:

*Extract 13: Audio 5. The Musical Chair: Jenene Crossan. RNZ Saturday Morning. April 4, 2021. Lines 459-466.*

1 G: We need to ensure that these people aren't in such dire need (.) that it becomes a  
 2 mental health issue as well, and that's what I'm seeing within my group↑ people  
 3 who are at complete despair↑ stage where I-I've (.) I fear for so many of them that  
 4 they may not be with us because they just ... they're sick of being sick (.) and they  
 5 can't see themselves getting better.

The extract has the guest voicing concerns for the mental wellbeing of her LC support group members who are in despair and losing hope. The guest uses the modal verb in “we need” to emphasise the obligation and accountability others should be taking to address these people’s challenges. Pronoun shifts occur, whereby the guest moves from “we” to what “I’m seeing with my group” using “my” to show ownership of the group. She goes on in first person reporting what she fears before moving onto “they” for the rest of the extract to refer to her group members. These footing shifts allow us to recognise who is responsible for what is being said, and to manage the different identities within the talk. They are often used if the factuality of a problem is being called into question (Wiggins,

2017). Emotion categories are used by saying “I fear” to manage her own stake within the issue (concern for her members) and to add credibility to her concerns, and amplify the seriousness of the issue (Wiggins, 2017). Three subject positions appear in this text, the group leader, the despairing sufferers and the elusive others who should be responding to the needs of these people. This supports the repertoire that LC is not being addressed, and as a result people are experiencing significant problems.

***Pattern 4: Lack of Research Grants***

A fourth recurrent but smaller pattern was a discussion of an absence of research grants from the government which supported LC being further constructed as an important issue that was not being addressed. Research is known to provide insights into diagnosis, supports and treatments for illnesses, yet funding to make this happen was not available, prolonging the suffering of patients. With many of the radio shows featuring researchers in the field, the hosts regularly voiced their surprise that so many had to resort to crowdfunding in order to conduct research into this serious and neglected problem. Contested illnesses have historically been a neglected area of study, yet with LC affecting thousands of people, funding was not being granted for research in this field:

*Extract 14: Audio 15. Similarities between long-haul Covid and ME Chronic Fatigue Syn(drome). RNZ Nine to Noon. December 16, 2021. Lines 364-372.*

- 1 H: Are you, are you getting funding↑ for this by the way↑  
 2 G: We've had to crowdfund (.) actually↓ Um, due to the urgency↑ you know, in  
 3 research, uh, research funding rounds take a long time↑  
 4 We couldn't sit around and wait because there, there was a lot of sick people  
 5 here in New Zealand and we wanted to make sure that we could get them  
 6 answers as soon as possible↑  
 7 So, yeah, we, we crowdfunded to, to get this underway.

In the above extract the guest describes the need to crowdfund for her study owing to an urgent need in ANZ to get answers for those struggling with LC. The extract begins with a question from the host using rising intonation for emphasises. The guest manages her accountability with hedging “actually,” and “you know” to soften her response to the question, justifying that research funding rounds take time. The comment “we couldn't sit

around and wait” could be seen as a stake inoculation, whereby she is managing her identity in relation to the talk and trying to accomplish the social action of being seen as helpful and defending her claim to take matters into her own hands (Wiggins, 2017). It also suggests they were anticipating how long funding rounds take, supporting the Interpretative repertoire that LC is an important problem not being addressed. She uses the collective pronoun “we” consistently in her response, referring to her research team. This use of a consensus allows her to show support for her claims. Additionally, it also reflected her sense of responsibility that they were the only ones who could help, and it was up to them to seek funding and provide answers for those suffering thus giving them agency to make the choice to help.

What is absent in the talk is who is responsible for the lack of funding and the guest fails to mention the government. This theme changes over time as research efforts become desperate and others start passionately arguing for the government to take action. It was not until LC numbers reached around 170,000 people in 2022 that the government acknowledged LC as a serious enough problem to warrant research funding. Before this, researchers and patients advocated for research funding “the researchers here... are pushing really hard for New Zealand to take this seriously and even the World Health Organization has said (.) Why is New Zealand not doing more around this research? (A5, April 2021, L207-212). This pattern was also constructed somewhat carefully, with most of the talk focusing on having to crowd-fund, instead of specifically criticizing the government in their role for not supporting LC research. It is likely an avoidance strategy that might function to minimise potential negative consequences of their complaint in terms of future research applications.

Interpretative repertoire two was well circulated throughout the audios, to promote messages that LC was not being addressed in Aotearoa New Zealand. It highlights that the consequences of this for people with LC were mental, social and economic; prolonging suffering and impacting recovery. Overall, LC has been constructed on radio media as a serious, real and important issue, that the institutions have failed to address causing significant ongoing problems for those with the illness.

## **Discussion**

With the media playing such a vital role in influencing how we construct meaning, I explored how LC as an illness is discursively constructed in ANZ Radio media. It has been well documented that media shapes people's understandings of an illness, thus affecting how those experiencing the illness may think about themselves or may be treated by others. LC proved to be a relevant, timely and exciting topic to study, with variety and depth within the interpretative repertoires (IR) and patterns drawn from the data. To date, no studies were found that examined the discursive intersections between LC and radio media, either in ANZ or internationally. Therefore, these findings successfully answered the research question and provided valuable insights and understandings into how LC is constructed and circulated.

The present study aimed to:

1. Learn what overarching interpretative repertoires of LC are being circulated on NZ radio;
2. Explore how these messages are communicated with discursive practices and subject positions;
3. Determine what broader institutional discourses underpin this communication; and
4. Evaluate the impact these messages could have on how LC is perceived and responded to.

The following chapter will summarize the key findings of this study, in relation to the above aims, the theoretical underpinnings, and the current research and available literature on the subject. The study's implications will be discussed, followed by the identified strengths and limitations. Further, suggestions for future research will be commented on. The chapter ends with a reflexivity section and a conclusion.

### **Summary of Key Findings**

The media constructed LC as a serious, debilitating illness causing a host of harmful negative impacts and consequences. The first key finding showing that LC is constructed as being "real and important" was demonstrated by patterns of the media representations of symptomology, patient experiences, and a comparison with a similar health problem. Secondly, it was constructed as a problem "not being addressed resulting in harmful consequences." In particular, this was represented by discussions of a lack of public health response, welfare and financial supports, appropriate medical treatments, and research opportunities. The IR's and patterns reinforced the concerning issue that we have a severe and debilitating illness in our communities, causing damaging effects on patients, with a

significant lack of supports available to help them. Other key findings included a variety of subjects positions that were utilised in the media to communicate and circulate these claims, drawing on various rhetoric devices and wider-institutional discourse to help them appear plausible. These are discussed below in relation to the research question and how these findings develop the literature to date.

### ***Long Covid is a legitimate illness, Ignored and Impacting Lives***

The first IR communicated LC as a real illness worthy of legitimisation and acknowledgement. While some speakers stressed the word ‘real’ explicitly to share their views on LC being genuine, there were other ways this was imparted on air. LC as a valid condition with hundreds of symptoms and various physical consequences was highlighted by radio guests. As seen in the literature, LC can be constructed by symptomology, by being discussed health professionals, researchers, and those with the condition. The described symptoms on air featured the three most prominent ones (fatigue, cognitive dysfunction and breathing difficulties) while also describing a wide range of others. This mirrored previous contemporary research and media representations well (Davis et al., 2021; O'Mahoney et al., 2023; Thaweethai et al., 2023). Fatigue and its extreme effects on functioning was the most frequently mentioned symptom within the audios, showing a parallel between the symptoms that were discussed on the radio and symptoms identified in research on LC. For example, the work by Walker et al. (2023) who proposed fatigue was the most common and debilitating feature of LC.

Radio representations of LC's prevalence, definitions, and predictors also aligned and developed existing literature on the topic. Additionally, audio narratives spoke to LC creating new and unusual health symptoms, and exacerbating pre-existing ones, supporting findings by Jeffreys and Russell (2023). Further findings in my study discuss the media representation of the relevance of LC being related to the initial Covid-19 experience, which shall be discussed in below.

### ***LC Risk is not Dependant on Severity***

A key finding within the science discourse regarding prevalence, was that the likelihood of getting LC was not dependant on how severe someone's initial Covid-19 infection was. All researchers and medical professionals in my study (apart from two) passionately advocated that risk was not linked to severity. They argued this was a misconception that needed to be corrected, that most LC patients never went to hospital for

Covid-19, and that there was no evidence showing the worse someone had Covid-19, the more likely they were to develop LC. The science discourse is important here as it is circulating on the radio as a means to legitimise LC as a severe illness and to challenge ideas about LC that are not supported by scientific research. For example, the argument between contemporary literature such as Taylor et al. (2021) arguing the lack of causal link and Merikanto et al.'s (2023) claims LC is linked to initial severity.

### ***An Absence of Patient Voice***

A surprising find in the study was the lack of patient voices on the radio. Although this was a pattern, it actually came from a very few people. The patients were often advocates too, so they had a different role as well as being a patient, implying that the voices on the radio needed to have some other level of expertise. This mirrored the way that the patient voice (which had been so strong on social media to get LC recognised) got silenced once the medical establishment engaged with the concept. For example, when patients coined LC and medical professionals renamed it as discussed in studies by Callard and Perego. (2021), Miyake and Martin. (2021) and Roth and Gadebusch-Bondio. (2021).

Building on this concept, one well-known business woman, who was also a LC patient and advocate was interviewed several times. However, there were very few audios that featured other people with LC, and their segments were usually just a few sentences. The finding that the media favoured broadcasting a well-known person with LC over others suggests a deliberate attempt to make LC more believable by using social status to give credibility to voice. This supports another finding in my study that the LC voice was only heard and acknowledged when it came from people with higher social standing such as doctors and athletes.

These findings support Entman's (1993) work (amongst others) on media using salience and selection to choose what can be aired to influence audiences (Lancaster et al., 2011; Muir et al., 2021). For LC on radio, one of the implications might be that they are consistently valuing expert voices over lived experience. This presents a stark difference between how LC was constructed on social media, compared to my findings of LC being constructed on the radio.

### ***Stigma, Discrimination and Marginalisation***

Researchers, medical professionals, and people with LC strongly voiced on air about the challenges they faced with LC not being believed and acknowledged. In doing so, this

went a long way in attempting to sway the views of others who dismiss the illness as not real or important and so enhancing its sense of legitimacy in society. As found in the previous literature, stigma is common in those with contested illnesses and can cause a host of negative impacts (Froehlich et al., 2022 or Whetten et al., 2008). For example, it effects people's abilities to feel acknowledged and validated, and receive appropriate medical, social, and economic supports. The results of this study showed LC had also been conceptualised as a contested condition attracting various forms of stigma. By being broadcasted as such, it works to argue its authenticity by publicizing the unjust and unfair treatment of those with the condition.

In my study, people with LC, health professionals and researchers all contributed to LC being constructed as real and important. In particular, this was in relation to the effects of stigma, discrimination, and the marginalisation that people with LC were experiencing. Stigma often occurred with people experiencing untrue and negative beliefs towards them as a result of having LC. Although so few individuals with LC were invited to talk on the radio, those who did described being gaslit by doctors and being told it was "all in their head" insinuating they were making up their symptoms. Others faced discrimination; especially in the context of being denied government benefits that were entitled to those with disabilities, but they refused to acknowledge LC as one. As a consequence, this created unfair distinctions of those with LC, resulting in people being treating differently, despite evidence showing how disabling and damaging the condition can be. Some even felt marginalised and treated as if they were insignificant. Three examples of this were people being told there was nothing wrong with them, that there was no place for them and that they did not believe in LC. Those with LC reported being made to feel undeserving of appropriate healthcare and financial supports. This can shape public discourse on LC, by offering insights into the personal battles that construct LC as a genuine issue causing distress, unfair treatment, and leading people to avoid health professionals. It could even shape medical professionals' views on LC and improve patient/doctor interactions, therefore increasing the likelihood people with LC will access help.

Overall, these findings support theories of stigma and marginalisation being experienced by people with LC. Previous research by Pantelic (2022) is supported by these findings and provides evidence of the gravity of stigmatic experiences for those with the condition. In addition, this also supported the broader work of contested illnesses receiving

stigma such as those with ME/CFS or HIV (Froehlich et al., 2022 or Whetten et al., 2008). These findings are concerning considering stigma is known to negatively influence people's help-seeking behaviours, creating a barrier in getting treatment and support, and effecting people's mood and wellbeing (Pantelic et al., 2022; Samper-Pardo et al., 2023). An important new finding not observed in previous literature was a fear that many people with LC had about being "found out" as having LC. This resulted in many not going to their GPs for help, not informing their work, and not wanting to be counted in LC statistics.

### ***Borrowing and Transferring Legitimacy and Legacy***

The current findings show how LC has been constructed as a long-term post-viral response to Covid-19 in line with research by many (Spiteri et al., 2020; WHO, 2022). Findings from my study also support the literature that LC is symptomatically very similar to Myalgic encephalomyelitis or ME/CFS (Choutka et al., 2022; Tate et al., 2023). On the one hand, LC's regular comparison with ME/CFS created an intriguing relationship which allowed the condition to borrow a sense of legitimacy, riding on the coat-tails of ME/CFS as a now credible illness. However, this appeared to be a reciprocal relationship, whereby having a strong connection to LC, ME/CFS began to attract new attention and be included in many LC research efforts. The broadcasting of such events has ultimately strengthened the social construction of the legitimacy of ME/CFS and LC. Despite these conclusions, little is still being done to support those with the condition, resulting in a lack of supports and lack of faith in the government.

### ***General Distrust and Systemic Failure***

In many other ways the findings of the present study mirror previous media research that portrays LC as a serious genuine health problem, that is causing long-term issues and impacts, for which patients are receiving little support. For example, news research by Davis et al. (2021) described LC as a serious health issue causing severe physical, mental, and social impacts. The second IR alluded to a general distrust in the institutions while outlining the impacts and consequences of LC. People's views about LC may have been influenced by messages about LC being circulated about a general distrust in the government, employers, and the medical profession to help. The institutions that were tasked with caring for New Zealanders in times of desperate need, failed them, leading to radio speakers going on air and advocating for much-needed interventions. These included the governments minimal and delayed efforts to set up LC targeted health care, with many people having to pay for

private health options. This supported and developed news research by Morton and Maher (2023) and Martin (2023) who also highlighted some of these issues. Therefore, my findings contribute new insights to ANZ literature, around radio portrayal of LC issues.

The present study also develops existing literature by showing the advocacy of researchers fighting for the government to give research grants. Instead, they had to resort to crowd-funding as the state did not allocate funding for LC research quickly enough. Distrust in the government spread to health professionals too. The medical professionals' absence of knowledge and understanding of LC echoed throughout the speakers' narratives, supporting international research by Callard and Perego. (2021), Kingstone et al. (2020), and Rushford et al. (2021). Similarly, employers and government benefit organisations came under scrutiny in my study for not creating enough financial supports and job protection for people. The results have been that many people with LC are unemployed, unable to provide for their families, and are having to sell their homes. Consequently, this builds on UK and US studies by Milliken (2022) and Perlis et al. (2022) around unemployment and the financial and social consequences of LC.

Another point to consider is that the lack of supports and medical treatments contributed to the development of mental health issues for many in my study. These findings support studies by Samper-Pardo et al. (2023), Skilbeck et al. (2023) and Rudenstine et al. (2022) in the ongoing experiences of mental illness in those with LC. Overall, the need for a collective approach was strongly advocated throughout the study with a desperate need for the accountability of the wellbeing of those with LC, to be shifted back to the government. The emphasis of pleading for the government to help, and criticisms of those in power was an unexpected shift in power relations in the audio. Considering one of the main stakeholders of the media (and radio shows) are the government (and funded by them) somehow they were freely able to speak out against the government. Particularly RNZ which hosted most of the audios is completely government funded. This appeared to contrast with some of the literature by Dyring (2020) and Omojola (2012) around the government having so much power as a main stakeholder of media. Ultimately, it appeared they had very little control around what was publicized against them. Interestingly, the public radio channels NewsTalkZB appeared to have more critical responses to those being interviewed about LC, with some advocates getting very limited airtime and significantly

fewer of their shows mentioned LC. These findings point to bias in commercially funded news media that may be attempting to minimise the problem of LC.

### ***Long Covid Over Time***

The findings of this study provided a nuanced way to conduct FiDA longitudinally. Selecting data and analysing it sequentially from oldest to newest allowed me to identify changes. The most prominent development was the change of LC being constructed initially as vague with researchers and doctors having little information about it, to a well-defined condition with WHO classification by the end of the data set.

The perceived amount of people with the condition also grew over time. An initial 5% climbed over the 2-year period with estimates between 20-50% of the population potentially having LC. Other changes were how LC was debated. Some people discussed LC calmly, passively, and methodically, others more actively and intensely. The more passionate guest voices turned to frustration and desperation as the time progressed and the suffering for people compounded with the supports still not eventuating.

Additionally, another change over time was in the government not responding to research needs. The theme that researchers had to crowd-fund for studies owing to a lack of government support was voiced consistently until 2022. By this time, LC numbers reached approximately 170,000 people and the government suddenly announced they would take action and start funding studies into LC. These types of results are not usually found in studies of news article texts and offer new insights to how LC has been constructed over radio, and over time.

### ***Subject Positions***

A strength of FiDA was the analysis of subject positions. In this study, various subject positions were produced that added credibility to the truth claims people circulated on air. These included the “Legitimate academics” who were experienced often international researchers who drew on science discourses, research and statistics to add integrity to their claims and advice. The “LC advocates” who were often people with LC too, and the “disbelieved and dismissed LC sufferers” also appeared as subject positions. These both were underpinned by citizenship discourses, giving them rights to be believed, and to advocate for others. In addition, the subject positions of “the disbelieving doctors and employers” were portrayed by people with LC, advocates and even other doctors and researchers. All of which were strongly advocating for them to change their perspective and

acknowledge LC is real. Interestingly, the “disbelieving hosts” despite being few, generally came from commercial radio, rather than non-commercial. They sometimes framed LC as not real or important, opening up the possibility for a different way of thinking about LC in contrast to the expert, yet also provided the opportunity for the expert to counter argue back. These findings map on to MFA studies, that characters make a story more believable, and in this case construct LC as a valid and credible illness fighting stigma and ignorance (Giles & Shaw, 2009).

### ***Discursive Practices***

How the reality of LC is constructed and circulated was a prominent theme in this study. The most surprising element of this was the passion and tenacity in some LC researchers, doctors, and advocates in the way they framed and conceptualised LC. Words and tones often portrayed a deep sense of urgency and desperation that nothing was being done to help the people struggling to live with the illness. It is very unusual for people from various professions to have to go on air to advocate for the existence of a debilitating illness, to help it be recognised and validated. The most passionate speakers were often those with personal ties to the illness, either having LC or similar themselves, or it affecting a close family member. Some verbally portrayed their passion on the subject quite explicitly, voicing their frustration with the government for the lack of supports, lack of funding for research, and lack of acknowledgment. The findings provide new insights as discursive practices have not previously been examined from radio media regarding LC.

As previously mentioned, discursive practices are the “how’s” of talk. The most common way people used discursive practices were through Extreme Case Formulations (ECFs). These are used to maximise the properties of LC events and issues and used to strengthen arguments, add credibility, justify points, and manage the speaker’s accountability for the talk (Wiggins, 2017). For example, people saying LC is “absolutely real” and people are “begging” for help yet being “entirely ignored” by the government. The use of pronouns and footing shifts occurred frequently in the talk, to communicate the relationship between the person talking and the account they are giving (Wiggins, 2017). Guests often changed pronouns from speaking for themselves, to speaking on behalf of people with LC to advocate for them. First person pronouns often provided information about perceived ownership of research, teams, and LC support groups. Assessments

provided evaluations of important issues and were further validated by second assessments verifying the first.

Guests also used pauses, hesitations, and silence. These were often in the context of finding talk troubling, such as being asked a confronting question, or needing to say something difficult on air. It also occurred when speakers were unsure how to communicate what they wanted to, or emotions made talk harder to achieve. However, they were also purposely involved to stress an important point, using pauses between words to emphasize something, such as people being “entirely (.) ignored (.) by the government.” Hedging was apparent in quite a lot of the talk, illustrating the delicacy of LC being a problem, or talking around an issue to avoid accountability (Wiggins, 2017). Minimisation was used more by hosts than guests (especially when they took up the subject position of “disbelieving host”) in some peoples attempts to minimise the seriousness of LC and downplay the importance of certain issues.

Listing was also commonly used, either in the standard 3-part list or listing symptoms or problems beyond this to add rhetoric strength to the discussion (Wiggins, 2017). Listing assisted speakers to manage their identities and accountability of what was being said. Affect displays provided the underlying emotion being invoked by the issue and assisted people to manage the psychological business occurring in talk. Consensus is another discursive device that was used predominantly used to suggest people agreed or supported the speakers claim. For instance, consensus allowed people to communicate issues on behalf of those with LC, enabling the speaker to reduce their investment in the talk, and increasing it being factual. Many researchers depended on this due to having a personal investment in the talk, by either personally having a post-viral condition or having family member with one. Consensus and corroboration enabled them to have their claims backed up by others, removing them partially as a key player.

Another way some speakers managed their investment in the talk or issues within the talk was by being vague in their accounts, while others used specific details to maximise their involvement. Disclaimers were most commonly used when speakers were attempting to mitigate their stance, such as the guest who over-emphasised her support for the government, before communicating their significant failures. In other audios, people often used metaphors to frame an issue in relation to blame and agency. For example, when one guest suggested they could not sit around and wait for the government to help.

Believability, credibility, and authenticity of people's accounts were also supported by the use of narrative structures and reported speech. Agent-subject distinctions were invoked to communicate a person's position as passive or active in regards to their agency in the talk. More frequently these were active for researchers, advocates and doctors, and passive for those with LC. Emotion categories allowed some speakers to communicate their emotional states as a form of interactional function, such as "I am shocked at the way I'm dismissed." One way professionals advocated for action to be taken regarding the issues surrounding LC, was by using category entitlements and modal verbs. These were most frequently used to highlight the expectation for the government to help, and for doctors to believe and treat patients. Even stake inoculation was sometimes used so speakers could defend against the possibility they were over-invested in their claims. Again, this was most frequently used by those with personal ties to LC. Overall, discursive practices have been heavily relied on in the audios about LC, with ECF use increasing as the time went on, and the desperation for help increased. They have successfully worked to emphasise and promote peoples claims, and highlight LC as a serious condition, with serious consequences that are not being addressed.

### ***Wider Institutional Discourses***

Various wider-institutional discourses were drawn on in the radio talk. These hold an innate power to add credibility and justification to people statements. Science discourses for example gave legitimacy to the construction of illnesses, backed by research and statistics, supporting the IR that LC is real. Radio pieces discussing symptoms, prevalence, underlying mechanisms and causes for a LC, all draw on a science discourse. The largest corpus of data found on radio of LC featured these, and allowed LC to be presented as more believable, owing to the statistics and scientific explanations that researchers offered to support it as a condition.

Hegemonic and neoliberal discourses also underpinned the talk of a few hosts from the audios. These were in relation to supporting the government and reducing the amount people depend on the state for accessing help. Counter-hegemonic discourses were drawn on by guests and some hosts, with respect to challenging the government in its failure to meet its obligations and responsibilities to those with LC and their needs for social and welfare supports. A binding between accountability, health, healthism, neoliberalism and economic discourses also occurred in a lot of the talk. These subtly dictated that health is a

consequence of personal choice, and to be good health citizens, people should be responsible for their own health, and not need to rely on the state for assistance. The implications at times were that people with LC were an economic burden. Patient experiences illustrated when the government or employers had let them down, leaving them accountable in managing their circumstances alone. These stories described the illusion of choice, where they have “had” to sell their homes or leave their jobs due to no other options being made available to them. Others highlight these neo-liberalistic issues by talking about their need to access private health care, because it was the only way they could get acknowledgement, support, and symptom management options. These increased the credibility of the narratives that LC was not being addressed and the systemic failure was compounding problems for people.

### **Implications**

These findings advance existing knowledge that LC is a legitimate illness needing urgent recognition and intervention. Subsequently, it also leads to new insights into media theory and how media spread ideas and perceptions of LC and other contested illnesses. Fortunately, for the most part these appeared to work towards highlighting the seriousness and impacts of these damaging conditions. The findings also presented new knowledge regarding how passionately people have had to advocate for the recognition of LC, choosing to utilise the power and reach of radio media to inform audiences of their concerns. Further power was obtained through the wider institutional discourses people relied on in their talk.

No other study to date has examined the prevalence of these discourses regarding LC in ANZ, and the findings speak to the power exercised by both hosts and guests in the media. The findings also have practical implications for those with the condition. For example, they inspire trust and give acknowledgement to patients that what they are experiencing is real, and that people are fighting for them, and they are not alone. Subsequently, this may improve their mood, reduce anxiety, and instil a sense of hope that changes will happen. The findings may also positively influence medical professionals and the public, improving their perceptions of LC leading to better patient/doctor interactions and improved health outcomes. As a result, those with LC may experience a reduction in stigma, discrimination and marginalisation that could be negatively impacting their physical and mental health and wellbeing. Practical implications could also involve changes in policy-making, by highlighting to the government the need for health and financial supports.

Consequently, this may lead to changes in provisions and perhaps work towards acknowledging LC as a disability. People with LC would then be entitled to better healthcare and benefits so they can afford to support themselves and their families and reduce the risk of losing their jobs or homes. Researchers and academics may also benefit from this study, in the way it advocates for the release of government research grants to fund future LC studies.

In the comparisons with ME/CFS, my research highlights these similarities further, building on the legitimacy of ME/CFS and other post-viral conditions that face stigma. In addition, my study has addressed an international gap in the research regarding media portrayal of LC. Furthermore, it showcased an exciting new ability to conduct FiDA longitudinally and with large amounts of data. Usually, FiDA and DA are used to capture a shorter period of time or a one-off event. As such, research that explores discourses is usually conducted on small amounts of texts. However, the multi-level amended FiDA provides evidence that the method can be used to examine thousands of lines of text and many hours of audios. Hopefully, others maybe inspired to try this technique and develop it further.

Overall, the present study enhances the literature on discourse analysis as an effective research method, and supports the innovative FiDA work by Riley et al., (2023) and Riley and Wiggins (2019), drawing on work by Willig (2022). In addition, it builds on Giles and Shaw's (2009) recommendations for using Media Framing Analysis and presents a convincing argument to use the two as a hybridised methodology.

### **Study Strengths**

The presented study was fortunate to feature various strengths. One was over 11 hours of audios were retrieved, which was a significant dataset from which to answer the research question. Data was also collected from the first mention of LC and captured over a 2-year period as intended, offering a longitudinal method. The audios collected were accessible both on aired radio (at the time the show was aired) and available online, increasing its potential audience and influence. Researching radio provided insights often not found in analysing news texts, and considered how people communicated discourses about LC, including the ways they talked and interacted with others. Limiting data collection to one geographic location also strengthened the study by considering the ANZ context of which LC was being constructed. Additionally, the study design combined radio shows that

had been aired on traditional radio and were also available on online radio, increasing the potential reach of circulated LC discourses.

Combining two methodologies added depth through a novel methodological approach, underpinned by in-depth engagement with the theoretical underpinnings and methods to ensure it was conducted appropriately. The study also drew on very recent literature, ensuring the knowledge I gained about the topic prior to conducting the study was current and valid. LC being such a new phenomenon meant that the study could provide novel research findings and contribute to the field of ANZ research.

### **Study Limitations**

By evaluating what talk does, the study did not have scope to analyse what actual impacts social constructions of LC was having on those with the condition. Conducting the study at a time when LC literature was so quickly evolving, meant it was at risk of being out of date before it was even finished. Fortunately, the findings are still relevant so this limitation did not negatively impact the study. Another limitation was analysing pre-recorded aired radio, rather than live radio. The previous aim of this study was to capture live radio as it happened in situ, to better capture the unrehearsed or edited discourses that are being circulated on air. Furthermore, I wanted to observe discourses on radio overnight when people may be more relaxed about what they say, in the assumption less people were listening. However, this proved to be an unrealistic task for a thesis study, requiring manual recording of live radio, or weekly downloads of the available 15-minute segments of the weeks-worth of recorded radio available online. This would have meant that data collection would have taken over a year, by downloading and transcribing 96 fifteen-minute audios every week, which was beyond the abilities of this thesis. Finally, the over-representation of one radio channel (RNZ) may have impacted the results. Despite every known radio broadcast available online that mentioned LC being used, there is always a possibility some were missed, especially considering the range of names attributed to LC.

An additional limitation was that the LC literature was constantly evolving throughout this study. As soon as one part of the study was conducted, other literature or breakthroughs emerged that effected my study, making it difficult to keep up. Its many names also made searching the literature difficult, having to create various Boolean phrases to encapsulate the many different names LC came under, to capture as much data as possible. At one point I was so concerned at the absence of any literature related to LC on

radio media, or LC using FiDA that I consulted with the Librarian at Massey University who too found no studies like the one I was conducting.

### **Recommendations for Future Research**

The findings support future research in many areas. Now I have established the ways LC is being socially and discursively constructed, future research can explore how these constructions are influencing and effecting people with LC, health professionals, and members of the public. Future research could look at how these media constructions effect people with LC, in terms of feeling validated, inspiring hope for new treatments and having advocates supporting their case. It could explore how the media representations of LC may have influenced or changed health professionals' views of LC, and in turn how they treat patients with the condition. Further studies could look at the financial struggles of those with LC in ANZ in more detail, to provide further insights and advocate for policy change. A follow up study could also involve recording live radio, particularly talk-back radio, for a set period of time to analyse more uncensored views of LC that are being circulated on air. Additionally, a further study could also look at whether there is a difference between government and commercially funded radio.

Furthermore, future research could look at video interviews to incorporate body language. In addition, given the structure of the thesis, I only focused on the main patterns that would help me answer the research question. A more minor pattern that I could have included if I was writing a larger project, was the positive and surprising idea of silver-linings. Unexpected positive consequences of LC featured in the data, such as people changing their work, relationships, and home locations for the better as a result of the condition helping them re-evaluate what is important to them. Others commented on it bringing families closer together. Future research could explore this issue more, for example, through semi-structured interviews with people who identify as having had positive consequences. It is recommended that the government review these findings, consider re-classifying LC as a disability, and review the current financial entitlements and health opportunities for those with the condition.

### **Reflection**

As someone who personally experiences post-viral syndromes; acknowledgement and advocacy from others are integral to maintaining hope and fighting for change. Raised by a mother bed-ridden with ME/CFS for at least a decade over my youth, I sensed the need

to research this important area, and uncover the ways these illnesses are constructed. The task of conducting the study was significantly larger than predicted. My own symptoms of fatigue and 'brain fog' made scrolling research articles and conducting transcribing exhausting. I admit I originally found the task of transcribing time-consuming and frustrating, and the most challenging practical part of the thesis owing to my symptoms. Only when I reminded myself of reflexivity, did I start to enjoy the process and honour the privilege it gave me to immerse myself over and over in valuable data (Shelton & Flint, 2020). Additionally, I was incredibly fortunate to be prescribed a new medication that within a few months eradicated 90% of my symptoms. I was then able to be a lot more productive and effective in my research and really started to enjoy it.

The most enjoyable part was pulling all the research together and recognising how it could influence change and contribute to the existing knowledge base of post-viral illnesses. I was very fortunate to have two extraordinary supervisors. One with an abundance of knowledge of Discourse Analysis, who was very patient with me while I grappled with the challenge of taking on such a different methodology. Another, with extensive knowledge and understanding of the research process in general and LC and ME/CFS. This allowed me to be supported academically, with a wealth of knowledge to draw from, and emotionally, with the innate understandings of the impacts my condition was having on my research efforts.

With this encouragement, I am confident I chose the appropriate methods in addition to using social constructionism (SC) as the overarching approach. I chose this as there were strong similarities and links between my own ontology and beliefs about the world and the way SC constructs knowledge. This was a relatively new shift in my beliefs about how knowledge is created. Being raised by a Christian mother and by a father with a physics PHD, my own beliefs were more empirical and positivist, fixed on the world being full of measurable phenomena, waiting to be discovered. However, having the recent privilege of completing a qualitative research paper during my master's degree opened my world to a whole new way of understanding. I became enthralled by the concept that the world was not in fact understood by observing what is already around us, or created solely through cognitive thought processes, but instead by describing our experiences within relationships and making sense of them through these interactions. Therefore, it is suggested that we socially construct and create our understandings through intimate

exchanges and discussions others (Burr, 2015). I enjoyed the idea that the terms we utilise to understand the world around us, do not necessarily come from our private experiences, but instead through the complex social processes and actions where we generate our understanding through dialogue with others. Admittedly, as a therapist who uses Cognitive Behaviour Therapy, the move from having cognitivist views to language as a social action was one of the hardest shifts for myself mentally in utilising discourse analyses. Listening to people make sense of their worlds by describing and understanding their internal experiences has been a cornerstone of my work but I could now also acknowledge the sense-making they gain when in dialogue with their therapist and how we assist them to construct their realities. The biggest challenge was that I needed to take out the interpretative impulse I had and look more logically at what the language was doing, rather than identifying what people were trying to mean. Once I had grasped this it became much easier. Finally, another challenge was hearing some of the stories of suffering. Fortunately, I relied on my counselling and psychology trainings to enable me to be impartial. When this was overly challenging, I also relied on my acceptance and commitment therapy training to acknowledge, accept, and accommodate these emotional responses, and practice self-compassion.

### **What's Not Being said?**

While ANZ studies on LC were limited, a significant gap of concern was the absence of research and reference to LC in Māori and Pasifika communities. These populations are more highly represented in our LC statistics than any other ethnicities in NZ (Jefferys & Rusell, 2023). Therefore, it was alarming to see so few studies published, and so little reference to these populations in the radio audios. While a constant echo is heard throughout the country to live and work adhering to the principles of Te tiriti o Waitangi, and to fight for the ongoing marginalisation of our Māori people, this population was only mentioned in few of the audios.

In summary, LC research in ANZ remains scant. Existing literature on the condition was thoroughly examined and a gap identified in need of attention. The study was driven by inspiration from personal lived experience, and from observing the effects of post-viral illnesses on family, as well as a genuine interest in LC. Creating a hybrid of Media Framing Analysis and a multi-level Discourse Analysis (FiDA), over 2 years-worth of ANZ radio was scrupulously transcribed and analysed. The present study successfully identified that LC

needs to be acknowledge as a real and important illness with disastrous consequences, and for those with the condition to be permitted the health, financial and social supports they deserve. Consequently, this fills a gap in current literature in how LC is discursively and socially constructed on radio media.

Overall, the findings of this study present a unique contribution, that in the context of a contested illness, I found a consistent pattern constructing LC as real, important, and people with LC needing better care and support. Even when radio hosts questioned whether LC was real, it was often in the context where the expert that they had invited on, was an advocate for LC. In a country where digital media use is on the rise, very few of our ANZ population trust their social media for news. This, alongside the higher than expected traditional and online radio audience statistics, suggests radio is still an important medium for which LC discourses are circulated, influencing peoples understanding of the LC. The passion and advocacy for the condition has potentially had a wide impact and is hoped to have influenced negative perceptions of LC and other post-viral conditions still fighting for legitimacy.

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**Appendix A**  
**Data Set Table**

Date aired	Storage Code	Title	Duration	Radio station/show	MFA / Transcription complete	Link
10/12/20	1	Chronic fatigue is not psychosomatic – study	10' 14"	RNZ The Panel	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/thepanel/audio/2018776634/chronic-fatigue-is-not-psychosomatic-study">https://www.rnz.co.nz/national/programmes/thepanel/audio/2018776634/chronic-fatigue-is-not-psychosomatic-study</a>
20/12/20	2	Battles continue for NZ Long Covid sufferers	7' 02"	RNZ Sunday Morning	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/sunday/audio/2018777972/battles-continue-for-nz-long-covid-sufferers">https://www.rnz.co.nz/national/programmes/sunday/audio/2018777972/battles-continue-for-nz-long-covid-sufferers</a>
3/2/2021	3	Dr Rosamund Vallings on Covid long-haulers and CFS-ME	27' 11"	RNZ Nine to Noon	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018782096/dr-rosamund-vallings-on-covid-long-haulers-and-cfs-me">https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018782096/dr-rosamund-vallings-on-covid-long-haulers-and-cfs-me</a>
10/2/21	4	Understanding 'Long haul' Covid19	13' 52"	RNZ Nine to Noon	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018782946/understanding-long-haul-covid19">https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018782946/understanding-long-haul-covid19</a>
4/4/21	5	The Musical Chair: Jenene Crossan	38' 37"	RNZ Sunday Morning	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/sunday/audio/2018790307/the-musical-chair-jenene-crossan">https://www.rnz.co.nz/national/programmes/sunday/audio/2018790307/the-musical-chair-jenene-crossan</a>
23/5/21	6	Professor Gary McLean on mixing and matching vaccines	10' 33"	RNZ Sunday Morning	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/sunday/audio/2018796598/professor-gary-mclean-on-mixing-and-matching-vaccines">https://www.rnz.co.nz/national/programmes/sunday/audio/2018796598/professor-gary-mclean-on-mixing-and-matching-vaccines</a>
17/6/21	7	When disease research gets personal	30' 41"	RNZ Our Changing World	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/ourchangingworld/audio/2018799656/when-disease-">https://www.rnz.co.nz/national/programmes/ourchangingworld/audio/2018799656/when-disease-</a>
10/8/21	8	Long Covid sufferers, researchers calling for study, funding	8' 56"	RNZ First Up	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/first-up/audio/2018807554/long-covid-sufferers-researchers-calling-for-study-funding">https://www.rnz.co.nz/national/programmes/first-up/audio/2018807554/long-covid-sufferers-researchers-calling-for-study-funding</a>
12/08/21	9	Long Covid short on research	22' 22"	RNZ The Detail	TRANSCRIBED	<a href="https://www.rnz.co.nz/programmes/the-detail/story/2018807667/long-covid-short-on-research">https://www.rnz.co.nz/programmes/the-detail/story/2018807667/long-covid-short-on-research</a>
19/8/21	10	Overseas data shows children are vulnerable to 'Long Covid'	8' 39"	RNZ Lately	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/lately/audio/2018808976/overseas-data-shows-children-are-vulnerable-to-long-covid">https://www.rnz.co.nz/national/programmes/lately/audio/2018808976/overseas-data-shows-children-are-vulnerable-to-long-covid</a>
15/10/21	11	Long Covid & Chronic Fatigue w/ Professor Warren Tate: October 15, 2021	10' 29"	95b FM	TRANSCRIBED	<a href="https://95bfm.com/bcast/long-covid-chronic-fatigue-w-professor-warren-tate-october-15-2021">https://95bfm.com/bcast/long-covid-chronic-fatigue-w-professor-warren-tate-october-15-2021</a>
16/10/21	12	Long-covid warnings for unvaxxed: 'Not just a respiratory virus' Same as "John Potter"	17' 02"	RNZ Sunday Morning	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/saturday/audio/2018816642/long-covid-warnings-for-unvaxxed-not-just-a-respiratory-virus">https://www.rnz.co.nz/national/programmes/saturday/audio/2018816642/long-covid-warnings-for-unvaxxed-not-just-a-respiratory-virus</a>

1/11/21	13	Support group recommends best supplies for those with Covid-19	6' 11"	RNZ First Up	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/first-up/audio/2018818578/support-group-recommends-best-supplies-for-those-with-covid-19">https://www.rnz.co.nz/national/programmes/first-up/audio/2018818578/support-group-recommends-best-supplies-for-those-with-covid-19</a>
7/11/21	14	Long Covid issues continuing to mount	18' 12"	RNZ Sunday Morning	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/sunday/audio/2018819491/long-covid-issues-continuing-to-mount">https://www.rnz.co.nz/national/programmes/sunday/audio/2018819491/long-covid-issues-continuing-to-mount</a>
16/12/21	15	Similarities between long-haul Covid and ME Chronic Fatigue Syn(drome)	20' 19"	RNZ Nine to Noon	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018824790/similarities-between-long-haul-covid-and-me-chronic-fatigue-syndrome-new-research">https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018824790/similarities-between-long-haul-covid-and-me-chronic-fatigue-syndrome-new-research</a>
10/3/22	16	More awareness needed about Long covid - Immunologist	4' 41"	RNZ Morning Report	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/morningreport/audio/2018833655/more-awareness-needed-about-long-covid-immunologist">https://www.rnz.co.nz/national/programmes/morningreport/audio/2018833655/more-awareness-needed-about-long-covid-immunologist</a>
14/3/22	17	Long Covid w/ Dr Anna Brooks: March 14, 2022	8' 49"	95b FM	TRANSCRIBED	<a href="https://95bfm.com/bcast/long-covid-w-dr-anna-brooks-march-14-2022">https://95bfm.com/bcast/long-covid-w-dr-anna-brooks-march-14-2022</a>
16/3/22	18	Epidemiologist: Concerns Long Covid could become a widespread health issue	2' 54"	NewstalkZB Mike Hosking Breakfast	TRANSCRIBED	<a href="https://www.newstalkzb.co.nz/on-air/mike-hosking-breakfast/audio/dr-mona-jeffreys-victoria-university-epidemiologist-says-there-are-concerns-long-covid-could-become-a-widespread-health-issue/">https://www.newstalkzb.co.nz/on-air/mike-hosking-breakfast/audio/dr-mona-jeffreys-victoria-university-epidemiologist-says-there-are-concerns-long-covid-could-become-a-widespread-health-issue/</a>
20/3/22	19	Dr John Cameron: What are the effects of long-covid?	40' 46"	NewstalkZB The Weekend Collective	TRANSCRIBED	<a href="https://www.newstalkzb.co.nz/on-air/the-weekend-collective/the-health-hub/dr-john-cameron-what-are-the-effects-of-long-covid/">https://www.newstalkzb.co.nz/on-air/the-weekend-collective/the-health-hub/dr-john-cameron-what-are-the-effects-of-long-covid/</a>
29/03/22	20	Long Covid: Experts warn against exercising too soon after virus	5' 30"	RNZ: Checkpoint	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018836174/long-covid-experts-warn-against-exercising-too-soon-after-virus">https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018836174/long-covid-experts-warn-against-exercising-too-soon-after-virus</a>
29/03/22	21	Developments In Long Covid Treatment and Research w/ Trishil Dahya	6' 10"	95b FM	TRANSCRIBED	<a href="https://95bfm.com/bcast/developments-in-long-covid-treatment-and-research-w-trishil-dahya">https://95bfm.com/bcast/developments-in-long-covid-treatment-and-research-w-trishil-dahya</a>
29/3/22	22	Warnings about Long Covid	33' 28"	RNZ Nine to Noon	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018836119/warnings-about-long-covid">https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018836119/warnings-about-long-covid</a>
29/3/22	23	Long Covid threat for Māori ignored	0' 14"	Waatea News	TRANSCRIBED	<a href="https://waateanews.com/2022/03/29/long-covid-threat-for-maori-ignored/">https://waateanews.com/2022/03/29/long-covid-threat-for-maori-ignored/</a>
3/4/22	24	Prof Jeremy Nicholson: the link between Long Covid and heart disease	26' 54"	RNZ Saturday Morning	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/saturday/audio/2018836711/prof-jeremy-nicholson-the-link-between-long-covid-and-heart-disease">https://www.rnz.co.nz/national/programmes/saturday/audio/2018836711/prof-jeremy-nicholson-the-link-between-long-covid-and-heart-disease</a>
6/4/22	25	Brain fog plaguing people after recovering from Omicron	4' 07"	RNZ: Checkpoint	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018837248/brain-fog-plaguing-people-after-recovering-from-omicron">https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018837248/brain-fog-plaguing-people-after-recovering-from-omicron</a>

8/4/22	26	Long Covid: Sufferers warn of virus' long-term impacts	5' 06"	RNZ Checkpoint	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018837539/long-covid-sufferers-warn-of-virus-long-term-impacts">https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018837539/long-covid-sufferers-warn-of-virus-long-term-impacts</a>
14/4/22	27	Natural Ange w/ Angela Haldane: April 14, 2022	7' 41"	95b FM Natural Ange	TRANSCRIBED	<a href="https://95bfm.com/bcast/natural-ange-w-angela-haldane-april-14-2022">https://95bfm.com/bcast/natural-ange-w-angela-haldane-april-14-2022</a>
3/5/2022	28	What happens if you've got Long Covid and can't work?	22' 56"	RNZ The Detail	TRANSCRIBED	<a href="https://www.rnz.co.nz/programmes/the-detail/story/2018840236/what-happens-if-you-ve-got-long-covid-and-can-t-work">https://www.rnz.co.nz/programmes/the-detail/story/2018840236/what-happens-if-you-ve-got-long-covid-and-can-t-work</a>
12/5/22	29	ME/CFS charity supports Long Covid sufferers	5' 31"	RNZ First Up	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/first-up/audio/2018795108/me-cfs-charity-supports-long-covid-sufferers">https://www.rnz.co.nz/national/programmes/first-up/audio/2018795108/me-cfs-charity-supports-long-covid-sufferers</a>
15/5/22	30	Cognitive impact of Long Covid laid bare	13' 46"	RNZ Sunday Morning	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/sunday/audio/2018841993/cognitive-impact-of-long-covid-laid-bare">https://www.rnz.co.nz/national/programmes/sunday/audio/2018841993/cognitive-impact-of-long-covid-laid-bare</a>
17/5/22	31	Dr Rob Griffiths: It will be related to the severity of the illness	3' 51"	NewstalkZB Heather du Plessis-Allan Drive	TRANSCRIBED	<a href="https://www.newstalkzb.co.nz/on-air/heather-du-plessis-allan-drive/audio/dr-rob-griffiths-it-will-be-related-to-the-severity-of-the-illness/">https://www.newstalkzb.co.nz/on-air/heather-du-plessis-allan-drive/audio/dr-rob-griffiths-it-will-be-related-to-the-severity-of-the-illness/</a>
18/5/22	32	Antibody testing underused to help Long Covid sufferers – expert	3' 16"	RNZ Checkpoint	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018842484/antibody-testing-underused-to-help-long-covid-sufferers-expert">https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018842484/antibody-testing-underused-to-help-long-covid-sufferers-expert</a>
16/6/22	33	Maori health experts fearful of Long Covid hit	3' 57"	RNZ First Up	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/first-up/audio/2018846035/maori-health-experts-fearful-of-long-covid-hit">https://www.rnz.co.nz/national/programmes/first-up/audio/2018846035/maori-health-experts-fearful-of-long-covid-hit</a>
23/6/22	34	Long Covid researcher skeptical of study suggesting Omicron causes less disease	3' 54"	RNZ Checkpoint	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018847020/long-covid-researcher-skeptical-of-study-suggesting-omicron-causes-less-disease">https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018847020/long-covid-researcher-skeptical-of-study-suggesting-omicron-causes-less-disease</a>
28/6/22	35	Efforts underway to establish Long Covid clinic	14' 10"	RNZ Nine to noon	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/ninetonoon/audio/2018847470/efforts-underway-to-establish-long-covid-clinic">https://www.rnz.co.nz/national/programmes/ninetonoon/audio/2018847470/efforts-underway-to-establish-long-covid-clinic</a>
13/7/22	36	Doctors aim to understand Long Covid's similarities to chronic fatigue syndrome (also posted same day as "Doctors looking at how to help Long Covid recovery")	4' 37"	RNZ News & RNZ Morning Report	TRANSCRIBED	<a href="https://www.rnz.co.nz/news/national/470873/doctors-aim-to-understand-long-covid-s-similarities-to-chronic-fatigue-syndrome">https://www.rnz.co.nz/news/national/470873/doctors-aim-to-understand-long-covid-s-similarities-to-chronic-fatigue-syndrome</a>
28/7/22	37	Opera singer needed professional help after Covid-19	4' 32"	RNZ Morning Report	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/morningreport/audio/2018851142/opera-singer-needed-professional-help-after-covid-19">https://www.rnz.co.nz/national/programmes/morningreport/audio/2018851142/opera-singer-needed-professional-help-after-covid-19</a>

29/7/22	38	Experts warn parents to watch for Long Covid signs in children	3' 38"	RNZ Checkpoint	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018851381/experts-warn-parents-to-watch-for-long-covid-signs-in-children">https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018851381/experts-warn-parents-to-watch-for-long-covid-signs-in-children</a>
3/8/22	39	Immunologist on research into Long Covid symptoms	3' 32"	NewstalkZB Mike Hosking Breakfast	TRANSCRIBED	<a href="https://www.newstalkzb.co.nz/on-air/mike-hosking-breakfast/audio/anna-brooks-immunologist-on-research-into-long-covid-symptoms/">https://www.newstalkzb.co.nz/on-air/mike-hosking-breakfast/audio/anna-brooks-immunologist-on-research-into-long-covid-symptoms/</a>
24/08/22	40	Student with debilitating Long Covid losing months off school	4' 35"	RNZ Checkpoint	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018855355/student-with-debilitating-long-covid-losing-months-off-school">https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018855355/student-with-debilitating-long-covid-losing-months-off-school</a>
6/9/22	41	Jenene Crossan: Six months of life with Covid-19	14' 10"	RNZ: Sunday Morning	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/sunday/audio/2018762790/jenene-crossan-six-months-of-life-with-covid-19">https://www.rnz.co.nz/national/programmes/sunday/audio/2018762790/jenene-crossan-six-months-of-life-with-covid-19</a>
20/9/22	42	Long Covid adds strain to Chronic Fatigue support services	6' 31"	RNZ Checkpoint	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018859506/long-covid-adds-strain-to-chronic-fatigue-support-services">https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018859506/long-covid-adds-strain-to-chronic-fatigue-support-services</a>
2/10/22	43	Dr Anna Brooks on the looming crisis of Long Covid	49' 28"	RNZ Smart Talk	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/smart_talk/audio/2018855602/dr-anna-brooks-on-the-looming-crisis-of-long-covid">https://www.rnz.co.nz/national/programmes/smart_talk/audio/2018855602/dr-anna-brooks-on-the-looming-crisis-of-long-covid</a>
6/10/22	44	Estimates at least 170,000 New Zealanders have Long Covid	5' 01"	Newstalk ZB Mike H Breakfast	TRANSCRIBED	<a href="https://www.newstalkzb.co.nz/on-air/mike-hosking-breakfast/audio/paula-lorgelly-auckland-university-health-economics-chair-on-study-into-the-effects-of-long-covid/">https://www.newstalkzb.co.nz/on-air/mike-hosking-breakfast/audio/paula-lorgelly-auckland-university-health-economics-chair-on-study-into-the-effects-of-long-covid/</a>
30/10/22	45	Dr Richard Webby: The latest research on Long Covid	11' 12"	RNZ: Sunday Morning	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/sunday/audio/2018864702/dr-richard-webby-the-latest-research-on-long-covid">https://www.rnz.co.nz/national/programmes/sunday/audio/2018864702/dr-richard-webby-the-latest-research-on-long-covid</a>
31/10/22	46	Long Covid needs good on-going multi-disciplinary care	7' 37"	RNZ First Up	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/first-up/audio/2018864770/long-covid-needs-good-on-going-multi-disciplinary-care">https://www.rnz.co.nz/national/programmes/first-up/audio/2018864770/long-covid-needs-good-on-going-multi-disciplinary-care</a>
27/11/22	47	Michael Baker: Covid-19 susceptibility and long-covid	12' 37"	RNZ: Sunday Morning	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/sunday/audio/2018868744/michael-baker-covid-19-susceptibility-and-long-covid">https://www.rnz.co.nz/national/programmes/sunday/audio/2018868744/michael-baker-covid-19-susceptibility-and-long-covid</a>
13/12/22	48	Long Covid, Long tail: Long summer of infection concerns	21' 26"	RNZ Nine to Noon	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018871009/long-covid-long-tail-long-summer-of-infection-concerns">https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018871009/long-covid-long-tail-long-summer-of-infection-concerns</a>
17/1/23	49	Risk of debilitating illness from Long Covid could grow - epidemiologist Michael Baker	6' 21"	RNZ: National News	TRANSCRIBED	<a href="https://www.rnz.co.nz/news/national/482560/risk-of-debilitating-illness-from-long-covid-could-grow-epidemiologist-michael-baker">https://www.rnz.co.nz/news/national/482560/risk-of-debilitating-illness-from-long-covid-could-grow-epidemiologist-michael-baker</a>
26/1/23	50	The Wire w/ Liam: January 26, 2023 (18.30-27.50)	9' 32"	95b FM The Wire	TRANSCRIBED	<a href="https://95bfm.com/bcast/the-wire-w-liam-january-26-2023">https://95bfm.com/bcast/the-wire-w-liam-january-26-2023</a>

26/1/23	51	Long Covid: Up to 300k NZers may have post-viral illness	3' 29"	RNZ Checkpoint	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018875235/long-covid-up-to-300k-nzers-may-have-post-viral-illness">https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018875235/long-covid-up-to-300k-nzers-may-have-post-viral-illness</a>
27/1/23	52	300,000 cases of Long Covid: study	21' 27"	RNZ Nine to Noon	TRANSCRIBED	<a href="https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018875322/300-000-cases-of-long-covid-study">https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018875322/300-000-cases-of-long-covid-study</a>
26 months		52 in total = 11h.8m 15s				

## Appendix B

### Simplified Jeffersonian Transcription Key

Transcription conventions:

↑up and ↓down arrows to show intonation/question mark

Underlying for emphasis

CAPITALS for loud

Square brackets for other relevant information e.g. [laughs] [inaudible] [data omitted]

Round brackets with a dot indicating a pause time e.g. (.) for less than one second, (1) for longer one with seconds in brackets (while often used to show a longer pause, the (...) sign was used in this thesis to show standard removed information).

Reported speech e.g. then he said “what are you eating”

Slower: <speed of speech> faster: >speed of speech<

°softness°

drawn out of sounds:

[ brackets for

[ Overlapping talk

Provided by S. Riley, taken from Riley & Wiggins, (2019).