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Editor’s Introduction

This is a timely opportunity to summarise the manuscript activity of the Journal over the calendar year of 2020. In 2020 The New Zealand Journal of Psychology received 53 manuscripts for consideration. Of these:

- 17 are currently under review
- 13 were accepted and published
- 12 were rejected
- 6 are currently under revision
- 3 were withdrawn before/after decision
- 2 are accepted and are awaiting publication

A significant number of manuscripts fail to meet our criterion ‘Relevance to New Zealand’:
“Manuscripts will only be considered for publication if (a) they include data collected from New Zealand samples, or (b) they discuss the relevance of issues contained in the manuscript to the New Zealand social and cultural context, or (c) they discuss the practice of psychology in New Zealand. **All published manuscripts must include a consideration of the applicability of the content to New Zealand’s indigenous Māori population.”**

In 2020, then, 28% of those manuscripts submitted were accepted. I’d anticipate that a similar number of those currently under review, or being revised following review, will subsequently be accepted for publication in 2021.

A final point relating to manuscript submission is to remind authors to ensure that they provide a title page separately to the anonymised manuscript. Manuscripts for which this has not been done prior to submission may be returned to authors to request it be done, and this adds to the period of time under review. If in doubt, please contact us.

As previously signalled, 2021 will also see a refresh of the Editorial Board – watch this space. Finally, thanks to all those who have contributed by submitting their work for consideration, for reviewing for the Journal, and otherwise supporting our activities.

CALL FOR PAPERS: Environment, climate and sustainability

We invite submissions for an upcoming special issue of the *New Zealand Journal of Psychology* focused on environment, climate, and sustainability.

We welcome contributions in the form of scholarly reviews, empirical research whether qualitative or quantitative in nature, commentaries relating to practice relevant to psychologists working Aotearoa New Zealand, and other relevant contributions. Contributions should be broadly relevant to the themes of environment, climate and sustainability, but more specific examples might include:

- Psychological and behavioural aspects of people and nature
- Ecological consequences of human actions
- Perception of, and behavioural responses to, environmental risks and hazards
- Māori and indigenous perspectives on the environment and it’s impacts
- Effects of environment (and perception of the environment) on human cognition and health
- Theories of environment-relevant behaviour, values, norms, attitudes, and personality
- Psychology of sustainability and climate change
- Psychological practice in the context of environment, climate and sustainability

Special issue Editors are drawn from the New Zealand Psychological Society’s Climate Psychology Task Force and include Brian Dixon, Jackie Feather, Natasha Tassell-Matamua, and Marc Wilson. For further information about the Society’s Climate Change initiatives please visit the Society website.

The deadline for submissions to the Special Issue is May 1st, 2021.

Consistent with the imperative of the Journal, *any* submission must clearly articulate relevance in the context of Aotearoa New Zealand. Information about the Journal, and general author guidelines can be found here.

Marc Wilson

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A Qualitative Study of Coping Strategies among Korean Immigrant Parents in Aotearoa New Zealand

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Few studies outside of the USA have focused on specific Asian immigrants to understand how Asians of differing ethnic backgrounds cope with their adjustment difficulties. Immigrant coping strategies are of particular importance because immigrants may experience additional stressors as a result of adjusting to a new country. Thus, the purpose of this study was to explore the coping strategies used by Korean immigrants as they negotiated various challenges adjusting to life in a new country. Focus group discussions were conducted with twenty-two Korean immigrants in New Zealand. Two main categories of coping strategies were identified: behavioural coping strategies and cognitive coping strategies. The findings suggest that Korean immigrants employed a variety of strategies to manage various adjustment difficulties. The findings are discussed in relation to cultural influences on coping choices as well as recommendations for counsellors and healthcare providers to consider cultural influences on immigrants' coping strategies and immigrants' evaluations of the appropriateness and utility of various coping strategies.

Keywords: *Adjustment; Coping, Immigration, Korean immigrants. New Zealand.*

Introduction

It is well documented in the literature that cultural transition and adaptation following immigration are generally perceived as potentially stressful events due to a multitude of challenges such as communication problems, unemployment, experiences of discrimination, and societal prejudice (Sue & Sue, 2003; Yeh & Inose, 2002). Immigration among individuals and families continues to grow worldwide (Potocky-Tripodi, 2002), which may lead to a corresponding increase in immigration-related stress. The stress of immigration and cultural adaptation may contribute to Asian immigrants from non-English speaking backgrounds, in particular, suffering negative psychological symptoms including anxiety, depression, and social isolation. Integration in a new society is a complex, multifaceted, and multidimensional process that often requires coping with diverse stressors in various aspects of life (Shuval, 1993).

In this period of heightened globalisation, the present wave of immigration differs from previous waves in that contemporary trans-border movements and activities of immigrants have been diversified, and their migratory nature and duration have been changed and extended as a result of the development of information and communication technologies as well as advancements in transportation (Kim, 2011; Oiarzabal & Reips, 2012). These multiplex and flexible forms of global migration have resulted in increased immigration to New Zealand.

Over the past 20 years Asian immigration has grown, driven mainly by increased economic, political, and cultural connections between New Zealand and Asia (Friesen, 2015). Statistics show that from 2001 to 2013 the number of immigrants from four major Asian countries—China, India, the Philippines, and the Republic of Korea (hereafter Korea)—increased from 87,906 to 220,200. Additionally, Statistics New Zealand (2014) forecast that all four ethnic populations in New Zealand are projected to grow by up to 20% in the next 20 years. Among the subgroups of Asian immigrants in New Zealand, Korean immigrants are a relatively young and skilled immigrant group and one of the fastest growing ethnic groups (Chang, Morris, & Vokes, 2006; Statistics New Zealand, 2014).

Most Korean immigrants who come to New Zealand have attained an undergraduate degree or graduate degree and professional work experience in their home country (Chang et al., 2006). Though they must meet immigration criteria, Korean immigrants often experience underemployment and lower income compared to their employment in Korea. Despite facing some challenges, Korean immigrants are becoming more established and choosing to stay in New Zealand longer (Statistics New Zealand, 2018; Yong, 2018).

Although this population comprises a significant proportion of New Zealand society, Korean immigrants and their well-being related to immigration have not been extensively studied in New Zealand. One reason research may be lacking is due to Korean immigrants' relatively short immigration history in New Zealand compared to other Asian groups such as Chinese immigrants (Chang et al., 2006). Much of the research on health and psychological well-being in New Zealand is largely based on studies of its three major ethnic groups: New Zealanders of European descent that comprise the population's majority, Māori, which are the indigenous people of New Zealand and Pacific Islanders (El-Shaden

Tautolo, Schluter, & Sundborn, 2009; Trauer, Eagar, & Mellsop, 2006). With the growth in the number of Korean immigrants in New Zealand further research is needed to improve our understanding of their adjustment and coping within the context of immigration. Thus, the current study focuses on Korean immigrants' experiences and coping strategies as they adjusted to life in New Zealand. Generally, Korean immigrants who live in New Zealand come from a collectivist culture. With collectivism, Koreans tend to put great emphasis on in-group norms and view the in-group as an extension of the self (Triandis, 1994). This collectivistic tendency is well reflected in Confucianism, which stresses the importance of respect for authority and an individual's place in the hierarchy of social and family relationships. For centuries, Confucianism has exerted a strong influence on the governments, societies, educational practices and family life of East Asia, including Korea (Park & Cho, 1995). Moreover, Korean Confucianism posits that the purpose of family life is unity, and emphasises hierarchy in human relations based on age, gender, and inherited social status (Park & Cheah, 2005).

Immigration-related stressors

Immigration has long been considered a stressor because it entails tremendous social and economic costs with uncertain benefits (Beiser, 1999; Ben-Sira, 1997; Lev-Wiesel, 1998). Stressors can be described as any environmental, social, or internal demand that requires individuals to readjust their usual behaviour patterns (Thoits, 1995). The transactional theory, by Lazarus & Folkman (1984) explores the relationship between stress and coping and states that coping becomes prominent when individuals face a major life challenge. Immigration is an example of an experience that could elicit significant stress. As stressors accumulate, individuals may have more difficulty coping with them, or the ability to adjust can be overtaxed, depleting physical and psychological resources. In turn, when perceived demands exceed the ability to cope the probability of negative consequences for the individual's well-being increases (Lazarus & Folkman, 1984).

Berry's acculturation theory (1997) builds upon Lazarus and Folkman's work (1984), stating that immigration can introduce a specific type of stress: acculturative stress. Acculturation or cultural adaptation is viewed as a process individuals go through to manage stressors encountered in their host society.[1] Furthermore, the process of adjusting to a new host country following immigration has been linked to high levels of stress, specifically acculturative stress (Bhugra, 2004; Torres & Rollock, 2004). For example, several studies conducted in New Zealand and the United States have found that Asian immigrants face a number of challenges and adjustment difficulties that may contribute to psychological problems (Cho & Haslam, 2010; Ho, 2004; Jang, Kim, & King-Kallimanis, 2007). Studies have also found Korean immigrants experience high levels of stress and mental health concerns (e.g., depression and anxiety) related to immigration (Cho & Haslam, 2010; Jang et al., 2007). Additionally, Asian immigrant parents are often at heightened risk for stress as they navigate parenting in a new cultural context. For example, immigrant parents often experience greater difficulties adapting than their children as they transition to their new host country due to limited English proficiency (Costigan & Dokis, 2006; Lee & Keown, 2018).

Furthermore, several studies conducted in New Zealand have found that Asian immigrants may experience employment and economic stressors. For example, many Asian immigrants' economic situations after arriving in New Zealand affect their housing arrangements and standard of living, influencing their long-term plans to settle (Yong, 2018). Significant issues that many experience are related to unmet employment expectations, with a profound gap between economic expectations pre- and post-migration. While many anticipate income reduction upon arrival in New Zealand, most are not prepared for the disparity between the level of income and status they had in their home country compared to that in their new host country (Chang et al., 2006; Ho, Cheung, Bedford, & Leung, 2000; Yong, 2018). Although they have qualified to come to New Zealand, due in part to their educational qualifications and professional experiences, they often find it difficult or impossible to secure jobs in their fields (Bartley & Spoonley, 2008; Chang et al., 2006; Ip & Friesen, 2001).

Difficulties gaining employment may also be related to limited English proficiency, lack of local work experience, and racial discrimination and prejudice. Studies involving Korean and other Asian immigrants have revealed evidence of employers' prejudice against applicants without local experience as well as those with a foreign accent, and those more qualified than themselves (Ho, 2004; Ho et al., 2000; Ip & Friesen, 2001; Pernice, Trilin, Henderson, & North, 2000). Thus, experiencing immigration-related issues such as difficulty communicating, racial prejudice, and unemployment constitute significant stressors that might adversely affect well-being, placing Korean immigrants at greater risk for psychological problems. In support of this, Aroian and Norris (2000) reported that exposure to multiple immigration stressors—again, language and employment difficulties and racial discrimination—are closely related to distress and depression among immigrants as they adapt and adjust to their new host country.

Coping strategies used by immigrants

Both the transactional model (Lazarus & Folkman, 1984) and acculturation theory (Berry, 1997) view coping as a natural response to stress introduced by the process of cultural adaptation. This process of adopting the values and behaviours of a new culture commonly appears in studies of immigrant stress and coping (Berry, 2006; Hovey, 2000; Ortega et al., 2000; Yakushko, 2010). Coping is viewed as particularly important because it may

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[1] Within the literature, several terms are used such as host culture, new host culture, host society/country, dominant national culture, or ethnic majority. Within this paper, these terms will be used to refer to the majority cultural group in a country to which an immigrant or migrant may be culturally adapting.

lessen the effects of acculturative stress and support immigrants' cultural adaptation (Kuo, 2014). Furthermore, Rumbaut (1991) has stated that "migration can produce profound psychological distress among the most motivated and well prepared individuals, and even under the most receptive circumstances" (p. 56). Coping, therefore, is considered necessary to help individuals manage psychological distress and adapt to their host country (Berry, 2006).

Immigrants use various coping strategies to deal with immigration-related difficulties, and these efforts have often been categorised within the literature as either effective or ineffective. Ineffective coping strategies—avoiding or withdrawing from different stressors—contribute to the emergence of mental health problems (Busse & O'Mahoney, 2000). Therefore, adopting effective coping strategies is considered important in reducing stress and managing difficult situations, and immigrant parents who cope with parenting stress in adaptive ways might experience stress reduction, which could lead to improved family adjustment. Following exposure to the host culture, Chinese immigrant parents in New Zealand, for example, reconstructed their parenting to enhance their adaptation to living in two cultural contexts (Chan, 2018). In this process, the parents weighed the value of maintaining specific Chinese practices and the benefits of adopting certain practices observed in the host country. After evaluating the beneficial aspects for their children and family, they adopted the practices of the host country they viewed as positive and balanced this with their traditional practices, some of which were no longer perceived as practical and applicable. Consequently, their parenting strategies were adapted to accommodate both cultural contexts.

Adaptive coping strategies are important for immigrant parents to be able to manage and cope with adjustment-related stress to support effective parenting, family adjustment, and work productivity (Penman & Goel, 2017). Coping strategies are also important in supporting immigrants' well-being and mental health (Draganovic, 2011). Despite the important role that adaptive coping strategies may have with regard to health and well-being, few studies have explored the strategies Korean immigrants employ when facing adjustment difficulties (Bae & Panuncio, 2010; Dixon, Tse, Rossen, & Sobrun-Maharaj, 2010). One study of Korean immigrant parents in Canada found that they had learned how to compromise and be resourceful (Bae & Panuncio, 2010). Findings from a New Zealand study demonstrated that immigrant families, including Korean families, used several strategies such as maintaining a positive attitude despite difficulties, availing oneself of family support, working together as a family, and participating in hobbies (Dixon et al., 2010). Findings from these studies provide important information about Korean immigrants' adjustment. A few studies also provide insight into other Asian immigrants' use of coping strategies, showing that immigrants often adopt strategies of seeking social support, attempting to integrate culturally, and practicing their religion (Cheng & Chang 1999; Chung et al. 1998).

Table 1. Demographic characteristics of the study sample

Immigrant parents	Age	Length of residence in New Zealand	Number of children	Income (in NZD)
Mothers				
Min Ja	53	20 years	2	75,000-100,000
Hyein	49	10 years	2	50,000-75,000
Yumi	39	2.5 years	2	< 25,000
Jung Ha	48	18 years	2	75,000-100,000
Yun Hee	43	18 years	1	> 100,000
Nari	40	3 years	3	Below 25,000
Yungmi	51	17.5 years	3	75,000-100,000
Jihye	53	21 years	2	75,000-100,000
Inhwa	32	10 years	1	25,000-50,000
Suj ka	40	7 years	2	< 25,000
Winnie	48	23 years	4	< 25,000
Daeun	50	5 years	1	25,000-50,000
Jimin	58	18 years	2	25,000-50,000
Na Yeon	-	-	2	-
Wonju	-	-	2	-
Aeri	-	-	1	-
Fathers				
Sungmin	56	13 years	2	25,000-50,000
Juh Ho	37	11 years	2	25,000-50,000
Yunhak	62	19 years	3	50,000-75,000
Yun Su	50	12 years	1	25,000-50,000

Note: All participant names have been changed to pseudonyms. Fourteen mothers and three fathers have received undergraduate degrees while Inhwa was a high school graduate and Yun Su had a postgraduate degree. Three parents did not provide their educational qualifications. In terms of marital status, all were married, while Winnie reported being divorced, and Daeun was widowed.

Given the increase in global migration, additional studies are needed to explore and better understand how immigrants of varied racial and ethnic backgrounds navigate adjustment difficulties. Few studies have examined immigrants' specific coping strategies when adjusting to life in New Zealand. Even less is known about Korean immigrants in this context. Hence, the current study employed a qualitative approach to explore coping strategies Korean immigrants use to manage challenges as they adjust to life in a new country. Understanding the coping strategies utilised by Korean immigrants may provide information that can inform interventions for reducing stress related to adjustment and improving immigrants' coping ability to enhance their well-being.

METHOD

Participants

Table 1 shows the sample characteristics of the participants. The sample consisted of 22 Korean immigrants (18 females and 4 males) with at least one child. The mean age of the participants was 47 (*SD* = 8.01) and the average number of years they had lived in New Zealand was 13 years. In addition, fourteen mothers and three fathers have received undergraduate degrees while one mother was a high school graduate and one father had a postgraduate degree. Three parents did not provide their educational qualifications.

Procedure

The University of Auckland Human Participants Ethics Committee (UAHPEC) in New Zealand approved the study's procedures, and all participants provided written informed consent. Participants were recruited in collaboration with Korean religious organizations, language schools, and community organisations in New Zealand. In addition, online postings informed individuals of the opportunity to participate in the study on local Korean-community websites. A total of six focus groups with 22 Korean immigrants were conducted. Focus groups were held at local Korean organisations or churches. All discussions were conducted in Korean, participants' preferred language, and video-taped with permission from each participant. Focus group discussion topics included: experiences as an immigrant in New Zealand, resources utilised to manage practical issues (e.g., day-to-day issues), and strategies they used to cope with challenges and difficulties they experienced as immigrants. The current paper focuses specifically on the challenges experienced and the coping strategies that they used to manage stressors.

Analytic Process

All focus group discussions were transcribed in Korean and then translated into English by the first author. Translated transcripts were then analysed using inductive content analysis as outlined by Thomas (2006). This approach identifies meaningful themes by analysing translated transcripts systemically. All transcripts were read multiple times to obtain an overall understanding of their content. Based on the initial readings, the first author highlighted key quotations and identified key codes. Data was coded manually. Initial categories, along with associated key coded quotations, were examined and compared. The two authors compared the initial coding categories and discussed each theme. Commonalities and differences in emerging themes were discussed and resolved to ensure the consistency of coding and interpretation. Common themes were grouped to generate broader themes, and the two authors discussed the overall relevance of supporting quotations. Upon completion of coding and classifying themes, these were reviewed and discussed between the researchers. In the event of inconsistencies between the researchers, the transcripts were consulted to clarify any discrepancies. In this process, the two researchers engaged in active dialogue to identify the major themes by recognizing how interactions between themes, experiences and, challenges living in New Zealand disclose the pattern of coping strategies used by Korean immigrants.

ANALYSIS

Participants reported they used different types of coping strategies to manage a wide range of problems they encountered during their adjustment. Two themes and six sub-themes were derived from the analysis of the focus group discussions: behavioural coping strategies and cognitive coping strategies.

Theme 1: Behavioural coping strategies

Behavioural coping strategies were the most frequently endorsed among participants. When managing daily problems, participants reported using two types of behavioural coping strategies: (1) seeking social support and (2) making an active effort to resolve problems.

Seeking social support: Several Korean immigrants mentioned accessing and utilising social support and help from different sources to manage a range of issues including finding a home, buying a car, and choosing a school for their children. Frequently used sources of support included community organisations (e.g., Korean churches), local families, and friends. Korean churches were often mentioned as the first and most informative resource for immigrants. One participant said that the church provided practical information for his family and helpful advice about settling into New Zealand. He also stated that Korean churches often assist new immigrants in their transition, and without such local support new immigrants may experience difficulty navigating challenges once they arrive:

> *Upon arrival in New Zealand, renting a house, finding a job, enrolling children at school, and buying a car were very difficult. However, I received assistance and support from the church regarding these matters. A large number of Korean immigrants attend Korean church and newly arrived immigrants receive assistance and support from people in church who are already settled into New Zealand. I received a lot of help from the church, and the church actively helped me to settle in this country. Newly arrived immigrants who do not join a Korean church and who do not speak English may have a difficult time dealing with these issues (Sungmin, a 56-year-old male).*

Participants also acknowledged that, in addition to giving practical support, the churches also functioned as a provider of emotional support. Many respondents stated they obtained important emotional support within their church community to help them manage their daily stress. One participant said:

> *I talk about a lot of things in church. If I have problems, I share my problems with people at church, and we work things out together (Jun Ho, a 37-year-old male).*

A few respondents reported seeking support from family members and friends who had previously immigrated to New Zealand. These relationships opened opportunities for them to share their personal issues or adaptation-related difficulties. For example, one participant said:

> *My brother came to New Zealand first before I arrived here, so I talked to my brother whenever I had difficulties, and he provided me with information (Min Ja, a 53-year-old female).*

Similarly, Korean community organizations (e.g., Korean-language schools) were also identified as important resources that helped Korean immigrant parents build social support networks to assist them in coping with difficulties. One mother said:

> *The New Zealand School of Korea is my only community. I really like to interact and communicate with mothers here. I also receive help from the mothers by communicating and sharing information (Yumi, a 39-year-old female).*

Making an active effort to resolve problems*:* Several respondents mentioned the need to take specific actions to solve problems, such as gaining meaningful employment and acquiring English-speaking proficiency. Moreover, most participants reported experiencing difficulty finding work in their field of expertise because often their Korean credentials were not recognised by New Zealand employers or because they had insufficient English-speaking language skills. For example, one participant whose husband previously held a professional job in Korea but currently worked in a lower-wage job in New Zealand said:

> *In general, Korean immigrant parents, including my husband, had high-quality jobs and high social status in Korea. But my husband works at a sushi shop because his credentials are not accepted despite his high educational attainment (Jung ha, a 48-year-old female).*

Taking active steps toward solving such problems was a coping strategy commonly used by many Korean immigrants to manage certain stressors. These approaches involved actively working to address challenges or barriers. For example, several respondents reported that they found alternative ways to obtain a job, including studying and taking courses in New Zealand. One participant said that she went back to school so she could go into a different field of work, which ultimately helped her gain her residency. Thus, participants reported using a variety of approaches to find employment. To address language-related difficulties, a few respondents stated that they searched for free English classes offered within the community. However, they reported that such efforts were often unsuccessful because there were few available courses or because the classes were not viewed as helpful for language learning.

> *There are services available in the community for immigrants to learn and improve their English language skills and there are also many other organisations that are funded to teach English for free. The courses are free to immigrants who have permanent residency. But, there are just too many students in the class so the instructors are not able to pay attention to each student (Yunsu, a 50-year-old male).*

Theme 2: Cognitive coping strategies

Several respondents reported utilising cognitive coping strategies to understand and manage the problems they experienced. Based upon the responses, four types of cognitive coping strategies emerged: accepting cultural differences, engaging in perspective taking, making social comparisons, and using inner strength.

Accepting cultural differences: This subtheme pertained to participants' awareness of basic cultural differences between Korea and New Zealand that they could neither overcome nor ignore. One participant reported he understood the existence of differences in various cultural aspects between the two countries, and he accepted these differences as time passed. He stated that accepting a cultural difference was the best solution to adapt to a new country:

> *Etiquette, relationships, conversation style, and the people are completely different from Korea, which needed time for me to accept the differences. I'm living in New Zealand now. So, what can I do to make myself adapt to this country? Just accept the differences (Yunhak, a 62-year-old male).*

Another participant said she believed that accepting and respecting cultural differences must be a fundamental norm for immigrants and are highly desirable in a multicultural society.

Engaging in perspective taking: Perspective taking is the ability to recognize another person's viewpoint and better empathise with what they are thinking and feeling. A few participants shared their experiences of discrimination and explained how they attempted to adopt another perspective to understand their respective situations. For example, one participant commented that she thought many Asians in New Zealand have also been responsible for such discrimination. She said the influx of Asian immigrants could be seen as a significant threat to the employment of New Zealanders. In the following statement, she shifted away from her own frame of reference and actively projected herself into what she thought was the perspective of other New Zealanders:

> *You see, [where I live], there are too many Chinese and Koreans. Also, many businesses and companies are owned by Chinese. I think that makes New Zealanders want to leave the area. I don't think New Zealanders want to work or be employed under Chinese. So, in my opinion, I think it's natural for New Zealanders to hate Asians, and I understand why some New Zealanders do not like Asians because Asians are taking over and stealing their jobs (Hye In, a 49-year-old female).*

Thus, this participant attempted to consider and understand negative experiences from a different perspective. Similarly, another participant also tried to view recent immigration from the perspective of New Zealanders and suggested she believed some Asian immigrants were responsible for negative treatment.

> *Many New Zealanders are still nice and kind to Asians. However, there are just too many Asians in this country now. I also think that New Zealanders are losing their jobs because of Asians. So, I have a feeling that New Zealanders don't like Asians anymore. But, I don't really blame New Zealanders for their unfavourable attitudes toward Asians and it is understandable why some are not*

> *friendly to Asians because Asian immigrants also cause many troubles here (Suk Ja, a 40-year-old female)*

Making social comparisons: Several Korean immigrants reported being able to view the difficulties they encountered more positively by comparing themselves with others who experienced similar challenges. For example, some participants mentioned that they dealt with their problems by likening their experiences to those of individuals living in Korea, which resulted in a better appreciation of their current situation in New Zealand and made their problems seem less severe. Although many participants said that they experienced issues with regard to adjusting to a new host country, some stated they perceived New Zealand as a safer and less competitive environment that allows both parents and children to enjoy their lives more as opposed to those who were still residing in Korea. For example, one respondent said that the higher quality of life in New Zealand, despite the adverse conditions that came with having a lower income, was more manageable compared to her previous life in Korea where her income was higher. Thus, such social comparisons helped her perceive her current situation in a more optimistic way:

> *The good thing about living in New Zealand compared to Korea is that I don't have to compete with people, and I can have a relaxed lifestyle and I don't have to be stressed out anymore. I am happy now (Nari, a 40-year-old female).*

Another immigrant who distinguished between her working conditions and those of others found herself better off than other immigrants and appeared to be accepting of her current situation as she remarked:

> *At least I own a small business here. I know some Korean immigrants who do not have proper jobs. Their situations are worse than mine (Yungmi, a 51-year-old female).*

Using inner strength: Being able to draw upon inner strength may support an individual's ability to adjust and thrive in the face of adverse circumstances. The majority of participants reported feeling helpless, which was often the result of stress associated with their adjustment to a new culture and performing tasks such as acquiring a new language as well as finding housing and employment. When encountering difficulties as a result of the adaptation process, a few respondents said that they used their willpower to get through difficult transitions. These participants utilized their inner strength and believed they possessed the will and determination to overcome their difficulties and enjoy their lives. One of the respondents said she developed resourcefulness and used her willpower, which made her believe that she was strong enough to handle any challenges that emerged:

> *So, we have to remind ourselves, 'I have to be strong to live in a foreign country because I can't speak their language.' We have to be ready and equipped with . . . you know, that kind of confidence. 'We can do it' sort of thing (Jihye, a 53-year-old female).*

This served as another important coping strategy, as the inner strength they used helped respondents get through stressful life events, as indicated by another participant:

> *I had many issues in the past 10 years and I went through a stressful time, but I have tried to appreciate my situation and I'm satisfied with my life here now (Inhwa, a 32-year-old female).*

DISCUSSION

The current study explored the coping strategies Korean immigrants employed as they navigated challenges associated with immigration and adjustment to a new host country. Participants reported using both behavioural and cognitive coping strategies. In the process of adapting to a new culture, immigrants face many immediate challenges that often require assistance. As a result, behavioural coping strategies to seek social support were used most frequently by Korean immigrants to manage a range of practical issues. Social support was available from different sources, such as family and friends already residing in New Zealand as well as Korean churches. However, for most Korean immigrants the latter emerged as their primary source of social support.

These findings are consistent with those from previous research demonstrating that Korean church networks in New Zealand (Chang et al., 2006) as well as other countries (Bae & Panuncio, 2010; Kim, Sangalang, & Kihl, 2012) serve as a source of considerable assistance to Korean immigrants and help facilitate their transition. Moreover, taking advantage of social support networks is commonly seen as a helpful coping strategy for immigrants, including Korean immigrants. For example, Kim et al. (2012) found that Korean-American immigrants who availed themselves of established social networks had better access to social support and tended to exhibit lower levels of depression compared to those whose social support was insufficient. Furthermore, talking about their problems with others enhanced their sense of belonging in the community and led to positive feelings (Kim et al., 2012). Contrary to some studies indicating that social support may not be effective for Korean-Americans due to Asian cultural norms of "saving face" and being concerned about burdening others with their difficulties (Taylor, Sherman, Kim, Jarcho, & Takagi et al., 2004), the current findings are consistent with those of other studies showing that one's social support network and sense of belonging, combined with relationships with others in the community, such as Korean organisations, serve as important coping strategies among Korean immigrants (Bae & Panuncio, 2010; Chang et al., 2006; Kim et al., 2012).

Another behavioural coping strategy that participants strongly preferred was taking direct action to manage challenges. Many immigrants reported actively taking steps toward solving the problems they encountered. For example, with regard to job-related difficulties and language barriers, many immigrants sought to mitigate their distress by identifying the problem, gathering information, and finding a solution. Although some Korean immigrants attempted to solve their problems directly, it did not always lead to positive results. Some respondents said community-based English classes, at times, provided inadequate services to address the needs of Korean immigrants as there were too few classes and too many students per teacher.

In addition to behavioural strategies, cognitive strategies were also used by many of the immigrants. The most frequently endorsed cognitive coping strategy in this study was accepting cultural differences. The majority of Korean immigrants reported dealing with undesirable life circumstances as they transitioned into their new host country. Unlike behavioural coping strategies, which helped immigrants actively resolve their problems, accepting cultural differences may have helped some participants deal with situations that could not be changed and, thus, needed to be adapted to or accepted. The authors are not aware of any studies to date that have reported that Asian immigrants in New Zealand use the strategy of accepting cultural differences to deal with stress related to adjustment. Thus, the current findings may provide additional information regarding the range of coping strategies that Korean immigrants may find helpful.

While the immigrants in this study reported using acceptance as a positive strategy, some individuals may experience adverse consequences. In collectivist cultures, people are encouraged to prevent conflict, maintain harmony, and avoid burdening others with their problems (Moore & Constantine, 2005). Hence, to maintain peace and harmony in a new country, some Korean immigrants may conceal the difficulties they experience with regard to cultural differences. This action is related to forbearance coping, which is a common collectivist strategy that involves disguising one's problems and withholding one's emotions to preserve social harmony (Moore & Constantine, 2005; Wei, Liao, Heppner, Chao, & Ku, 2007). In one study, Wei et al. (2007) found that when respondents reported using forbearance coping to manage high-level acculturative stress, this strategy was positively associated with psychological distress. However, this was only found among Chinese international students who did not strongly identify with their heritage culture (Wei et al., 2007). Wei et al. (2007) interpreted these results as indicative of a lack of support from the cultural community. Thus, the impact of acceptance coping may depend on the degree of support from their cultural community as well as the extent to which immigrants maintain their cultural values and behaviours.

Another cognitive strategy that may be culturally preferred by Korean immigrants is perspective taking. Cultural values affect the choice of coping strategies that an individual employs in a given situation (Phillips & Pearson, 1996). The use of perspective-taking is related to Confucian ideals that promote the strengthening of social bonds by increasing perceived self-other overlap (Śleziak, 2013). Koreans may be strongly attuned to others' perspectives because of their cultural imperative to consider a situation from another's point of view and focus attention on others' actions and knowledge (Choi, Chentsova-Dutton, & Parrott, 2016). In the current study, some Korean immigrants attempted to imagine situations from the perspective of another person. When they engaged in perspective taking, they tried to view a situation from the perspective of other New Zealanders to gain a better understanding of their behaviour toward Korean immigrants. Although perspective taking is often associated with positive social outcomes such as increased understanding of others or greater empathy, when used in the manner of some Korean immigrants in this study it may also contribute to rationalizing and accepting experiences of discrimination or unjust treatment. For example, some participants stated that perspective taking helped them understand why some New Zealanders' attitudes toward Asian immigrants were unfavourable and that they themselves were responsible for the discrimination that they faced because so many immigrants had come to New Zealand. Wei et al. (2007) suggest that such internal regulation strategies may not mitigate the acculturative stress of external events like discrimination. Therefore, perspective taking as a coping strategy in this instance may have both positive and negative aspects, especially if it is associated with immigrants accepting and blaming themselves for poor treatment and discrimination.

Some Korean immigrants also reported adopting other cognitive strategies such as comparing themselves to other individuals in similar stressful situations. Social comparisons are known to be effective coping strategies that allow individuals to interpret their difficulties in a positive light by thinking of people who are worse off than themselves. Thus, they are able to feel better about themselves and their situations through social comparisons (Wong, 2002). For example, a study of Mainland Chinese immigrants in Hong Kong found that they employed comparisons in their bid to accept hardships associated with accommodation and employment problems and compared their situations to those of others in similar or more adverse situations (Wong, 2002). In the current study, Korean participants' social comparisons involving those who were still in Korea helped them appreciate their current situation in New Zealand and made them feel better about the stressors they experienced.

Drawing upon inner strength and resourcefulness was another cognitive strategy that was helpful for some immigrants because it provided them with the confidence to believe that they could overcome any challenges that arose. Inner strength, which can be translated as *Nae Gang,* also appears to be culture-specific as revealed in Korean culture. It is argued from a historical perspective that survival in Korean culture is realised through inner strength rather than physical strength. Furthermore, this view has its roots in the internal strife and foreign invasions to which Korea was often subjected throughout history. Hence, Koreans have a tendency to perceive inner strength as being that which enables one to endure difficulty and suffering so as to survive (Yoon & Williams, 2015). Furthermore, adopting an optimistic attitude has been found to be an important resource for coping with acculturative stress among Asian immigrants in New Zealand (Dixon et al., 2010).

The main themes in the current study (e.g., behavioural coping, cognitive coping) fit with Lazarus and Folkman's (1984) seminal work on stress and coping, which states that coping involves cognitions and behaviours that are used to manage emotions or problems directly related to a specific stressor. This study also contributes to the broader literature connecting Lazarus and Folkman's transactional theory of stress and coping (1984) with Berry's (1997) acculturation theory. Lazarus and Folkman (1984) suggest that coping responses may be needed when an individual experiences a significant life change, such as migration. Both theories recognize, in varying degrees, that acculturative stress is a type of stress that may necessitate certain coping strategies to adjust and adapt to a host culture. Thus, the need to utilise and develop coping responses to manage the accompanying stress of migration and cultural adaptation may be viewed as an expected part of the transition (Donnelly, 2002).

The results of the current study offer important information regarding the experiences and challenges, as well as the coping strategies that Korean immigrants utilise in New Zealand. The findings may be helpful and informative for counsellors or healthcare professionals who hope to understand immigrants' situations and challenges and consider ways to provide culturally appropriate services with the goal of minimising psychological distress. Having an awareness and understanding of both the importance and natural need for coping skills in response to the stress of cultural adaption may be important for those working with Korean immigrants.

Several recommendations can be made based upon the participants' responses. First, the findings of the current study suggest that counsellors and healthcare providers need to be aware that cultural values influence the choice of coping strategies employed by Korean immigrants. When counsellors are working with immigrants, they may be unaware that culture can influence perceptions of stress as well as the coping strategies that are considered acceptable (Aldwin, 1994; Bonnano, 2004), specifically by Korean immigrants. Consequently, they may encourage clients to utilise certain coping strategies that they are not culturally prepared to employ (Wong, 2002).

Although coping strategies may be used in adaptive or maladaptive ways (Yakushko, 2010), it is important that counsellors use caution labelling immigrant coping responses as effective or ineffective without also considering their cultural context. What may appear to be an ineffective strategy may already have been carefully assessed by the individual from multiple perspectives and chosen as the most appropriate given their beliefs, values, and circumstances (Donnelly, 2002). Moreover, some immigrants may have more resources and options available to them in the acculturation process. While others may have fewer available options, including the choice to migrate (Hovey, 2000). All of these factors can influence their experiences of stress and views on the cultural relevance and appropriateness of various coping strategies. Thus, it is important that counsellors understand and appreciate the context in which stressors are appraised and coping strategies are identified and utilised.

Furthermore, research has revealed consistently that Asian immigrants, including Korean immigrants, are reluctant to seek counselling services and professional help (Park & Bernstein, 2008, Sue et al., 2012). This is possibly related to the stigma of seeking professional help for personal problems and the discomfort of participating in programmes and services that support the use of direct and more confrontational methods of coping. It is important to note that culture may influence what resources are viewed as appropriate to utilise (Bonnano, 2004). Therefore, it is imperative that counsellors develop and provide *culturally appropriate interventions* that incorporate goals that are consistent with the clients' cultural values. Additionally, counsellor attitudes towards a client's cultural values and preferences for culturally relevant coping responses can influence the therapeutic alliance and create barriers to accessing resources because immigrants may avoid seeking help if they do not feel that providers understand and support them in their goals (Anderson, 1998).

It is also important for counsellors to identify sources of support and strength for individuals, family, and community networks related to adjustment and coping. Collectivist cultures emphasise family, friends, and groups. Furthermore, each individual is viewed as fundamentally interconnected in a larger social unit. During times of difficulty and crisis, Asians in collectivistic cultures tend to rely on support from extended family members, friends, the community, and organisations (Kramer, Kwong, Lee, & Chung 2002). Due to technological advancements, immigrants may maintain close contact with families and friends in their homeland. They may also rely on their local ethnic community in their host country. These social connections may be important sources of support as immigrants cope with adjusting to a host culture. These relationships should be viewed as a valuable resource that may further support clinical work with immigrants (Schnittker, 2002). Hence, it is advised that counsellors make use of these support systems to increase adherence to treatment.

An awareness of a client's cultural values is important for counsellors to provide culturally appropriate and acceptable services. Although immigrants, particularly recent immigrants, may experience stress as they adapt to a new culture they are also resourceful and can make informed decisions regarding culturally appropriate and supportive resources as they adjust to a host country (Yakushko, 2010). Thus, their coping responses can also be viewed through a lens of strength taking their cultural values, goals, and circumstances into account.

It is also important to note that Korean immigrant experiences are neither static nor universal. Immigrants' cognitive appraisal of stressors and the coping strategies that they use to manage them may change over time because coping is a dynamic process, which is influenced by a multitude of things such as cultural, political, and economic factors (Donnelly, 2002). Depending upon their level of acculturation, an individual may choose one coping strategy in the initial stages following their arrival in a host country and a different strategy after having lived in the country for several years. Thus, coping responses may change within an individual across time as they become more acculturated. A few studies have examined differences in coping strategies based upon individuals' level of acculturation. In a study by Noh and Kasper (2003), problem-focused coping was helpful in buffering the impact of discrimination, but only among more acculturated Korean immigrants. Yoshihama (2002) conducted a study comparing coping strategies among Japanese women in the USA with varying degrees of acculturation. Active problem-focused coping was associated with less psychological distress among USA-born Japanese women but greater psychological distress among Japanese-born women. Taken together, these findings suggest that coping strategies may be viewed differently among immigrants and may also have different effects depending upon the individual's acculturation and cultural views of various strategies (Kuo, 2014). Thus, a strategy may be adaptive for one individual and not adaptive for another individual. A coping response may also be helpful for an individual early in their adjustment and less helpful later. Taking this into account Deen (2002) suggests counsellors can help recent immigrants develop a 'survival kit' to help them cope with the initial transition. Therefore, the effectiveness of coping responses may vary and must be viewed in the context of an individual's social, cultural, political, economic, and historical circumstances (Donnelly, 2002), with an awareness that immigrant needs may change over time as well as across generations.

Just as second and third generation immigrants may have been born in New Zealand but still experience some degree of cultural stress, the Māori population in New Zealand may also share some similarities in their experiences navigating cultural differences. Both the Māori and Korean immigrants are minority groups within New Zealand that have experienced discrimination and acculturative stress as they culturally adapted to the dominant national culture (Cho & Haslam, 2010; Hirini & Collings, 2005; Sang & Ward, 2006). According to Greenfield (2009), both cultural groups may be considered more interdependent compared to Pākehā in New Zealand, suggesting that they may be culturally different from the dominant national culture. Greenfield (2009) goes on to suggest that intercultural contact may lead to social change and adaptation, and the presence of a dominant group may necessitate changes in cultural values and behaviors on the part of non-dominant group members, which can also include cultural changes in indigenous groups. Thus, Korean immigrants and Māori individuals may develop coping responses to manage stressors related to adapting to or fitting into the dominant national culture. However, there are also significant differences in their experiences as Māori are indigenous to New Zealand, making their cultural experiences different from those of immigrant groups. Though some of the experiences of marginalisation and discrimination may be similar, their needs and culturally relevant coping responses may differ. Thus, it is important for counsellors to appreciate differences in cultural values or the level of acculturation in individuals' choices of coping responses. Individuals from indigenous groups as well as recent immigrants and refugees may experience different stressors that necessitate unique coping responses as they adapt to a dominant national culture.

Lastly, counsellors may also familiarise themselves with Korean resources within the community such as Korean churches, Korean language schools, and other Korean organisations or places serving Korean communities so that they can provide clients with information on local resources if they are interested. Korean churches and community organisations such as Korean-language schools may be key resources on which to build social support systems and to gain emotional support. Community practitioners could partner with Korean churches and organisations to help them develop social support networks and activities. Collaborations between social services and Korean organisations could also provide broader care that supports immigrant adjustment in a manner that is culturally sensitive, socially supportive, and convenient for immigrant families. Finally, carefully planning the professional guidance and support provided to immigrants during their initial stage of adjustment might significantly reduce the impact of major stressors on immigrants' daily lives. For example, interventions could emphasise the importance of coping strategies and encourage utilising both social support and local resources. Moreover, focusing on developing and strengthening adaptive and culturally appropriate coping strategies would be helpful. These skills could assist immigrant clients in facing multiple stressors related to their adjustment as well as other possible stressors in the future. Therefore, such interventions could help to empower immigrant clients to manage stressors and promote well-being.

However, this study should also be interpreted in light of its limitations. First, the majority of participants were recruited from Korean churches, which provided a range of benefits beyond the spiritual. Those who do not attend church may have different experiences or use different coping strategies. Future research should widen the scope to include respondents from non-religious or non-Christian groups. Next, the participants in this study consisted mainly of immigrants whose average age was 47 years, which restricts the generalisability of the results as coping strategies may vary among individuals in different age groups. Thus, the results should be interpreted cautiously because other immigrants of different age groups may experience varying degrees of adjustment difficulties and use different coping strategies. Moreover, the majority of the participants were female. Thus, the current findings may not apply to Korean male immigrants as they cope with immigration-related stressors. A few mothers in the study suggested that Korean fathers may need additional support transitioning to a new host country. Future studies could focus on the experiences and needs of Korean immigrant males specifically. Finally, the study only examined which coping strategies Korean immigrants said they utilised for managing adjustment difficulties. However, there may be additional benefits of using these coping strategies in broader areas such as social functioning, mental health, and physical health. Thus, it may be helpful for future studies to explore the benefits of using specific coping strategies in regard to health and well-being among immigrants.

Conclusion

This study contributes to the burgeoning interest in understanding behavioural coping and cognitive coping strategies employed by immigrants as well as the influence of culture on coping patterns among Korean immigrants. Our findings suggest that Korean cultural values have an impact on the choice of some coping strategies that immigrants employ to deal with their migration and adjustment-related difficulties. It is suggested that immigrants should be provided with culturally appropriate counselling so as to understand and learn specific coping strategies to help them manage stressful circumstances during adjustment. It may be helpful for healthcare providers to be aware of the potential importance of utilising both behavioural and cognitive coping strategies as well as being able to connect individuals with local Korean community resources to support them as they manage adjustment related stressors.

References

Aldwin, C. M. (1994). *Stress, coping, and development: An integrative perspective.* New York: Guilford.

Anderson, J.M. (1998). Speaking of illness: Issues of first generation Canadian women—Implications for patient education and counseling. *Patient Education and Counseling, 33*, 197–207. doi: 10.1016/s0738-3991(98)00019-6

Aroian, K. J., & Norris, A. E. (2000). Resilience, stress, and depression among Russian immigrants to Israel. *Western Journal of Nursing Research, 22*(1), 54–67. doi: 10.1177/01939450022044269

Bae, J., & Panuncio, R. L. (2010). Embracing New Lives as Korean Immigrants in Canada: A Grounded Theory. *Journal of Korean Academy of Psychiatric and Mental Health Nursing, 19*(4), 466–474.

Bartley, A., & Spoonley, P. (2008). Intergenerational transnationalism: 1.5 generation Asian migrants in New Zealand. *International Migration, 46*(4), 64–83. doi: 10.1111/j.1468-2435.2008.00472.x

Beiser, M. (1999). *Strangers at the gate: The "boat people's" first ten years in Canada.* Toronto: University of Toronto Press.

Ben-Sira, Z. (1997). *Immigration, stress, and readjustment*. West Port, CT: Praeger.

Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review, 46*, 5–43. doi: 10.1080/026999497378467

Berry, J. W. (2006). Stress perspectives on acculturation. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge of acculturation psychology* (pp. 43–57). New York, NY: Cambridge University Press.

Bhugra, D. (2004). Migration and mental health. *Acta psychiatrica Scandinavica, 109*, 243–258. doi: 10.1046/j.0001-690X.2003.00246.x

Bonnano, G. A. (2004). Loss, trauma, and human resilience. American Psychologist, 59, 20–28. doi: 10.1037/0003-066X.59.1.20

Busse, D., & O' Mahoney, G. P. (2000). Migration Issues in Mental Health: A Review; 1-er Congreso Virtuale Psiquiatria. February – Mart, inter Salud net.

Chan, A. (2018). Transnational parenting practices of Chinese immigrant families in New Zealand. *Contemporary Issues in Early Childhood, 19*(3), 219–230. doi: 10.1177/1463949117691204

Chang, S., Morris, C., & Vokes, R. (2006). Korean *migrant families in Christchurch: Expectations and experiences.* Blue Skies Report No 11/06. Wellington, New Zealand: Families Commission.

Cheng, A. T. A., & Chang, J. C. (1999). Mental health aspects of culture and migration (Editorial Review), *Current Opinion in Psychiatry, 12*(2), 217–222.

Cho, Y., & Haslam, N. (2010). Suicidal ideation and distress among immigrant adolescents: The role of acculturation, life stress, and social support. *Journal of Youth and Adolescence, 39*(4), 370–379. doi: 10.1007/s10964-009-9415-y

Choi, E., Chentsova-Dutton, Y., & Parrott, W. G. (2016). The effectiveness of somatization in communicating distress in Korean and American cultural contexts. *Frontiers in Psychology. 7*:383. doi: 10.3389/fpsyg.2016.00383

Chung, R. C., Bemak, F., & Kagawa-Singer, M. (1998). Gender differences in psychological distress among Southeast Asian refugees. *Journal of Nervous and Mental Disease, 186*(2),112–119. doi: 10.1097/00005053-199802000-00007

Costigan, L., & Dokis, P. (2006). The relations between parent-child acculturationdifferences and adjustment within immigrant Chinese families. *Child Development, 77*(5), 1252–1267. doi: 10.1111/j.1467-8624.2006.00932.x

Deen, N. (2002). (Young) Newcomers in European societies: Implications for education andcounselling. International Journal for the Advancement of Counselling, 24, 3–17. doi: 10.1023/A:1015071301684

Dixon, R., Tse, S., Rossen, F., & Sobrun-Maharaj, A. (2010). *Family resilience: The settlement experience for Asian immigrant families in New Zealand.* Families Commission Research and Evaluation Report No 4/10. Wellington, New Zealand: Families Commission.

Donnelly, T. T. (2002). Contextual analysis of coping: implications for immigrants' mental health care. Issues in Mental Health Nursing, *23*(7), 715–732. doi: 10.1080/01612840290052848

Draganovic, S. (2011). Mental health and coping strategies of Bosnian immigrants in Switzerland. *Facta Universitatis, 10*(2), 195–202.

El-Shadan Tautolo, E. S., Schluter, P. J., & Sundborn, G. (2009). Mental health well-being amongst fathers within the Pacific Island Families Study. *Pacific Health Dialog, 15*(1), 69–78.

Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: A study of emotion and coping during three stages of a college examination. *Journal of personality and social psychology, 48*(1), 150–170. doi: 10.1037/0022-3514.48.1.150

Friesen, A. (2015). *Asian Auckland: The Multiple Meanings of Diversity*. Wellington: Asia New Zealand Foundation.

Greenfield, P. M. (2009). Linking social change and developmental change: Shifting pathways of human development. *Developmental Psychology*, *45*(2), 401–418. doi: 10.1037/a0014726

Hirini, P. R., & Collings, S. C. D. (2005). *Whakamomori, he whakaaro, he kōrero noa =: A collection of contemporary views on Māori and suicide*. Ministry of Health.

Ho, E. (2004). Mental health of Asian immigrants in New Zealand: A review of key issues. *Asian and Pacific Migration Journal, 13*(1), 39–60. doi: 10.1177/011719680401300103

Ho, E., Cheung, E., Bedford, C., & Leung, P. (2000). *Settlement assistance needs of recent migrants*. University of Waikato, Hamilton: Migration Research Group, Department of Geography and Population Studies Centre and New Zealand Immigration Service.

Hovey, J. D. (2000). Acculturative stress, depression, and suicidal ideation among Central American immigrants. Suicide and Life-Threatening Behavior, *30*(2), 125–139.

Ip, M., & Friesen, W. (2001). The new Chinese community in New Zealand: Local outcomes of transnationalism. *Asian and Pacific Migration Journal, 10*(2), 213–240. doi: 10.1177/011719680101000201

Jang, Y., Kim, G., & King-Kallimanis, B. (2007). A bidimensional model of acculturation for Korean American older adults. *Journal of Aging Studies, 21*(3), 267–275. doi: 10.1016/j.jaging.2006.10.004

Kim, Y. (2011). *Transnational migration, media and identity of Asian women: Diasporic daughters.* London: Routledge.

Kim, B. J., Sangalang, C. C., & Kihl, T. (2012). Effects of acculturation and social network support on depression among elderly Korean immigrants. *Aging and Mental Health, 16*(6), 787–794. doi: 10.1080/13607863.2012.660622

Kramer, E. J., Kwong, K., Lee, E., & Chung, H. (2002). Cultural factors influencing the mental health of Asian Americans. *The Western journal of medicine*. *176*(4), 227–231.

Kuo, B. C. (2014) Coping, acculturation, and psychological adaptation among migrants: a theoretical and empirical review and synthesis of the literature. *Health Psychology and Behavioral Medicine, 2*(1), 16–33. doi:10.1080/21642850.2013.843459

Laux, D., & Thieme, K. (2006). Koreans in Greater Los Angeles: Socioeconomic polarization, ethnic attachment and residential patterns. In W. Li (Ed.), *From urban enclave to ethnic suburb: New Asian communities in Pacific Rim Countries*. Honolulu: University of Hawaii Press.

Lazarus, R. S., & Folkman, S. (1984). *Stress Appraisal and Coping.* New York: Springer.

Lee, B., & Keown, L. J. (2018). Challenges and changes in the parenting experiences of

Korean immigrants in New Zealand. *Asian and Pacific Migration Journal, 27*(4), 431–450. doi: 10.1177/0117196818810112

Lev-Wiesel, R. (1998). Coping with the Stress Associated with Forced Relocation in the

Golan Heights, Israel. *Journal of Applied Behavioral Science, 34*(2), 143–160. doi: 10.1177/0021886398342002

Min, P. (1998). *Changes and conflicts: In Korean immigrant families in New York.* Boston: Ally and Bacon.

Moore, J. L., & Constantine, M. G. (2005). Development and initial validation of the collectivistic coping style measure with African, Asian, and Latin American international students. *Journal of Mental Health Counseling*, *27*(4), 329 –347. doi: 10.17744/mehc.27.4.frcqxuy1we5nwpqe

Noh, S., & Kaspar, V. (2003). Perceived discrimination & depression: Moderating effects of coping, acculturation, and ethnic support. *American Journal of Public Health, 93*(2), 232–238. doi: 10.2105/AJPH.93.2.232

Oiarzabal, P. J., & Reips, U. (2012). Migration and diaspora in the age of information andcommunication technologies. *Journal of Ethnic and Migration Studies, 38*(9), 1333–1338. doi: 10.1080/1369183X.2012.698202

Ortega, A. N., Rosenheck, R., Alegria, M., & Desai, R. A. (2000). Acculturation and the lifetime risk of psychiatric and substance use disorders among Hispanics. *Journal of Nervous & Mental Disease, 188*(11), 728–735. doi: 10.1097/00005053-200011000-00002

Park, I. H., & Cho, L. J. (1995). Confucianism and the Korean family. *Journal of Comparative Family Studies, 26*(1), 117-134.

Park, S. Y., & Cheah, C. S. L. (2005). Korean mothers' proactive socialisation beliefs regarding preschoolers' social skills. *International Journal of Behavioral Development, 29*(1), 24-34. doi: 10.1080/01650250444000306

Penman, J., & Goel, K. (2017). Coping and resilience of rural and regional Australian immigrants: imperatives for successful settlement. *Rural Society, 26*(2), 178–193. doi: 10.1080/10371656.2017.1339406

Pernice, R., Trlin, A., Henderson, A., & North, N. (2000). Employment and mental health of three groups of immigrants to New Zealand. *New Zealand Journal of Psychology, 29*(1), 24–29.

Phillips, M. R., & Pearson, V. (1996). Coping in Chinese Communities: The Need for a New Research Agenda. In M. H. Bonds (Ed.), *The Handbook of Chinese Psychology* (pp. 429–440). Hong Kong: Oxford University Press.

Potocky-Tripodi, M. (2002). *Best practices for social work with refugees and immigrants.* New York: Columbia University Press.

Research New Zealand (2014). *Special report on the 2013 Census of New Zealand's Population and Dwellings.* Wellington: Research New Zealand.

Rumbaut, R. G. (1991). The agony of exile: A study of the migration and adaptation of Indochinese refugee adults and children. In F. L. Ahearn, & J. L. Athey (Eds.), *Refugee children: Theory, research, and services* (pp. 53–91). Baltimore: Johns Hopkins University Press.

Sang, D. L., & Ward, C. (2006). Acculturation in Australia and New Zealand. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (1st ed., pp. 253-273). Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511489891.021

Schnittker, J. (2002). Acculturation in context: The self-esteem of Chinese immigrants. *Social Psychology Quarterly, 65*(1), 56–76. doi: 10.2307/3090168

Shuval, J. T. (1993). *Migration and stress.* In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 641–657). New York: Free Press.

Śleziak, T. (2013). The role of Confucianism in contemporary South Korean society. *Annual of Oriental Studies* - Rocznik Orientalistyczny. LXVI. 27–46.

Statistics New Zealand (2014). *New Zealand in profile 2014*. Retrieved from http://www.stats.govt.nz

Statistics New Zealand (2018). *Ethnic group (total responses) by age group and sex, for the census usually resident population count, 2001, 2006, and 2013 censuses (RC, TA).* Retrieved from http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE802 1#

Sue, D. W., & Sue, D. (2003). *Counseling the culturally diverse: Theory and practice* (4th ed.). John Wiley & Sons Inc.

Taylor, S. E., Sherman, D. K., Kim, H. S., Jarcho, J., Takagi, K., & Dunagan, M. S. (2004). Culture and social support: Who seeks it and why? *Journal of Personality and Social Psychology, 87*(3), 354–362. doi: 10.1037/0022-3514.87.3.354

Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behavior, 35*(Extra Issue), 53–79.

Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation, 27*(2), 237–246. doi: 10.1177/1098214005283748

Torres, L., & Rollock, D. (2004). Acculturative distress among Hispanics: The role of acculturation, coping, and intercultural competence. *Journal of Multicultural Counseling and Development, 32*(3), 155–167. doi: 10.1002/j.2161-1912.2004.tb00368.x

Trauer, T., Eagar, K., & Mellsop, G. (2006). Ethnicity, deprivation, and mental health outcomes. *Australian Health Review, 30*(3), 310–321. doi: 10.1071/AH060310

Triandis, H. C. (1994), *Culture and social behavior.* NY: McGraw-Hill, Inc.

Wei, M., Liao, K. Y., Heppner, P. P., Chao, R. C., & Ku, T. Y. (2012). Forbearance coping, identification with heritage culture, acculturative stress, and psychological distress among Chinese international students. *Journal of Counseling Psychology, 59*(1), 97–106. doi: 10.1037/a0025473

Wei, M., Heppner, P. P., Mallen, M. J., Ku, T., Liao, K. Y., & Wu, T. (2007). Acculturative stress, perfectionism, years in the United States, and depression among Chinese international students. *Journal of Counseling Psychology, 54*(4), 385–394. doi: 10.1037/0022-0167.54.4.385

Wong, D. F. K. (2002). Stage-specific and culture-specific coping strategies used by Mainland Chinese immigrants during resettlement in Hong Kong: A qualitative analysis. *Social Work in Health Care, 35*:(1-2), 479–499, doi: 10.1300/J010v35n01_08

Yakushko. O. (2010). Stress and coping strategies in the lives of recent immigrants: A grounded theory model. *International Journal for the Advancement of Counselling*, *32*, 256-273. doi: 10.1007/s10447-010-9105-1

Yeh, C. J., & Inose, M. (2003). International students' reported English fluency, social support satisfaction, and social connectedness as predictors of acculturative stress. *Counselling Psychology Quarterly, 16*(1), 15–28. doi: 10.1080/0951507031000114058

Yong, S. (2018). *An Asian perspective and the New Zealand treasury living standards framework.* New Zealand Treasury Discussion Paper 18/10. Wellington, New Zealand: New Zealand Government.

Yoon, K. K., & Williams, B. (2015). *Two lenses on the Korean ethos: Key cultural concepts and their appearance in cinema.* Jefferson: McFarland.

Yoshihama, M. (2002). Battered women's coping strategies and psychological distress: Differences by immigrant status. *American Journal of Community Psychology, 30*(3), 429–452. doi:10.1023/A:1015393204820

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Are New Zealand psychology students more susceptible to essentialist explanations for mental illness? Neuroessentialism and mental illness stigma in psychology and non-psychology students

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A neuroessentialist perspective holds that mental illness is the result of brain dysfunction. Unfortunately, essentialist beliefs promote the view that people with a mental illness are fundamentally different to people without a mental illness. This identification of difference, in turn, increases mental illness stigma. The primary aim of the current study was to compare the impact of biological (i.e., essentialist) and psychosocial explanations on mental illness stigma in students completing their Bachelor Degree in Psychology and non-psychology majors. Participants were 294 students, 170 of whom were completing a Bachelor Degree in Psychology. Consistent with previous work, our results revealed biological explanations led to higher essentialist beliefs and mental illness stigma for both psychology and non-psychology students.

Keywords: *Essentialism, Mental illness, Stigma.*

Introduction

Neuroessentialism is the belief that our brains define us (Roskies, 2002). When applied to mental illness, a neuroessentialist perspective holds that mental illness is the result of brain dysfunction (Schultz, 2018). This perspective gripped psychiatry in the mid-80s, best illustrated by the title of Nancy C. Andreasen's (1984) book, *The Broken Brain: The Biological Revolution in Psychiatry*. Beyond trying to explain mental illness using a biological model, Andreasen (1984) held that a biological explanation would allow the mentally ill to be viewed "…as human beings who deserve as much sensitivity and love as people who suffer from cancer, muscular dystrophy, or heart disease" (p. 2). The basis for this argument is a theory of attribution in which biological explanations place mental illness out of an individual's control, diminishing blame and eliciting empathy (Harrington, 2019; Weiner, 1993).

Unfortunately, despite an increase in the public endorsement of biological explanations of mental illness, tolerance towards individuals with mental illness does not appear to have had a concomitant increase (Pescosolido et al., 2010; Schnittker, 2008; Schomerus et al., 2012). For example, Pescosolido et al. (2010) compared answers to the 1996 and 2006 American General Social Surveys. Participants read vignettes about people experiencing a mental illness (e.g., depression) and were asked the degree to which they endorse the underlying cause as being biological (e.g., due to a "chemical imbalance in the brain") or social (e.g., due to "the normal ups and downs of life"). There was a 13% *increase* in a neurobiological conception of depression (54% to 67%) and a 9% decrease in attributing periods of depression to the ups and downs of life (75% to 67%). Despite these changes, there was no change in measures of prejudice, such as how willing participants would be to work with or socialise with a person with mental illness. Similar findings have been observed in Germany (Angermeyer, Matschinger, & Schomerus, 2013), Australia (Reavley & Jorm, 2012), England and Scotland (Mehta, Kassam, Leese, Butler, & Thornicroft, 2009).

In addition to these large-scale national surveys, several smaller studies have demonstrated that there are a multitude of stereotypes and prejudices people hold toward those with a mental illness (Bennett, Thirlaway, & Murray, 2008; Corrigan & Bink, 2016; Kenny, Bizumic, & Griffiths, 2018). For example, common stereotypes include unpredictability, dangerousness, and incompetence, which, in turn, lead people to be cautious or completely avoid people with a mental illness. Corrigan and Bink (2016) refer to these stereotypes and prejudices as 'public stigma', reflecting the fact that they represent the views held by most people in the general population toward a specific group. Stigma, however, can also operate with respect to the self (i.e., people with a mental illness internalising public stereotypes) and at a structural level. For example, an individual with mental illness may internalise the stereotype that people like them are incompetent, making it difficult for them to build the efficacy and confidence required to gain employment. In contrast to public- and self-stigma, structural stigma operates at the level of the law, restricting opportunities for those with a mental illness (Corrigan, Markowitz, & Watson, 2004). For example, until recently, people who are taking medication for their mental illness could not be accepted into the New Zealand Police Officer training programme (Ryan, 2017).

An important question is why prejudice against people with mental illness has remained high? The answer is relatively straight forward. While a neuroessentialist perspective may decrease blame, a neuroessentialist perspective is by definition essentialist (Dar-Nimrod & Heine, 2011; Haslam & Kvaale, 2015; Proctor & Keil, 2006). Haslam and Kvaale (2015) define essentialism as "…the belief that a fixed, hidden, and identity determining cause… generates the observed properties of a category" (p. 400). When applied to mental illness, essentialist beliefs promote the view that people with a mental illness are fundamentally different to people without a mental illness (Haslam & Kvaale, 2015). The negative impacts of essentialist beliefs are numerous (Haslam & Kvaale, 2015). For example, people with mental illness who attribute their condition to a biological cause (e.g., brain dysfunction) are more pessimistic about potential recovery (Lebowitz, 2014). Even clinical psychologists are not immune to the negative effects of biological explanations. For example, Lebowitz and Ahn (2014) presented clinicians with a series of vignettes describing a patient with a mental illness (e.g., schizophrenia) and attributing the illness to either a biological (e.g., larger-than-normal ventricles in the brain) or psychosocial cause (e.g., a highly emotional and extremely stressful home during childhood). Clinicians' feelings of empathy (e.g., feelings of compassion) were significantly *lower* following the biological, relative to psychosocial, explanations (Lebowitz & Ahn, 2014).

Mental Illness Stigma in New Zealand

The research conducted on mental illness stigma in New Zealand is relatively dated. For example, Green, McCormick, Walkey, and Taylor (1987) compared undergraduate students judgements of a "mental patient" and an "average man" between 1978 and 1984. Students held several stereotypes about the "mental patient", judging them as more unpredictable, tense, and dangerous than the "average man". Similarly, Patten (1992) collected data from a representative sample of people within New Zealand and found that people associate mental illness with unpredictability and violence. Following these early descriptive studies, Read and Law (1999) and Read and Harré (2001) investigated whether the endorsement of biological explanations of mental illness is associated with harmful stereotypes. These studies revealed two important insights. First, similar to Patten's (1992) findings with a general population sample, a large proportion of psychology students viewed people with a mental illness as unpredictable (Read & Harré, 2001: 75%; Read & Law, 1999: 77%) and dangerous (Read & Harré, 2001: 41%; Read & Law, 1999: 47%). Second, across both studies, biological explanations of mental illness were associated with prejudice toward people with a mental illness. For example, participants rated themselves as less likely to become romantically involved with a person if they had spent time in a psychiatric hospital.

In an attempt to shift students' views, Read and Law (1999) presented undergraduate psychology students with two lectures that emphasized the role of psychosocial factors in mental illness (e.g., early abuse, low socio-economic status, etc.), challenged some of the common stereotypes people hold about those with mental illness, and highlighted the effectiveness of cognitive-behavioural treatments. Following the lectures, there were significant reductions in the endorsement of stereotypes such as unpredictability and dangerous. In a follow-up study, Walker and Read (2002) presented undergraduate mathematics students with a 5-minute video tape of a person describing some of their symptoms to a doctor, with the doctor providing a biological, psychosocial, or biological and psychosocial explanation of the illness. The titles of each of the three videos emphasized their biological ('A Brain Disorder with Genetic Predisposition'), psychosocial ('The Long Term Effects of Trauma'), or biological and psychosocial focus ('Biological and Environment Factors'). In contrast to Read and Law (1999), Walker and Read (2002) found little evidence that the videos significantly shifted students views of people with a mental illness.

Present Study

Building on the work of Read and Law (1999) and Walker and Read (2002), the current study directly compares the impact of biological and psychosocial explanations on mental illness stigma in undergraduate psychology and non-psychology majors.

METHOD

Participants

Participants were 294 students at the University of Otago (239 females, Mean age = 22.19, Standard Deviation = 5.05), 170 of whom were completing a Bachelor Degree in Psychology. Participants were relatively evenly spread across various years of study (Year 1: *n* = 33, Year 2: *n* = 70, Year 3: *n* = 93, Year 4: *n* = 63, Year 5: *n* = 10, not currently studying: *n* = 25). The majority of participants were New Zealand European (*n* = 169, 57.5%), followed by Asian (*n* = 60, 20.4%), Māori (*n* = 27, 9.2%), European (*n* = 19, 6.5%), Pacific Islander (*n* = 3, 1%), Middle Eastern (*n* = 3, 1%), and other (*n* = 13, 4.4%). With respect to experience with depression, 38.1% (*n* = 112) had experienced depression themselves, 48% (*n* = 141) had someone in their family with depression, 75.5% (*n* = 222) had a friend with depression, 67.3% (*n* = 198) have known someone, who is not a friend, with depression, and 13.6% (*n* = 40) had a job that involves contact with people with depression. Only 4.8% (*n* = 14) reported no previous contact with someone with depression. With respect to experience with schizophrenia, 0.3% (*n* = 1) had experienced schizophrenia themselves, 7.1% (*n* = 21) had someone in their family with schizophrenia, 5.4% (*n* = 16) had a friend with schizophrenia, 18.7% (*n* = 55) have known someone, who is not a friend, with schizophrenia, and 7.5% (*n* = 22) had a job that involves contact with people with schizophrenia. The majority of participants reported no previous contact with someone with schizophrenia, 72.8% (*n* = 214). Participants were recruited through an experiment-participation pool and received either course credit or $15 as compensation. There were no pre-determined criteria that participants had to meet in order to participate in the experiment. The current study was reviewed and approved by the University of Otago Human Ethics Committee.

Procedure

Vignettes. Participants were required to read four vignettes taken from Lebowitz and Ahn (2014), which described fictitious individuals seeking treatment for a disorder. Vignette 1 depicted an individual experiencing schizophrenia with a biological causal explanation (SB). Vignette 2 depicted an individual experiencing schizophrenia with a psychosocial explanation (SP). Vignette 3 depicted an individual experiencing depression with a biological explanation (DB). Finally, Vignette 4 depicted an individual experiencing depression with a psychosocial explanation (DP). The order that the vignettes appeared in, and the gender of the individuals depicted in the vignettes, was counterbalanced across participants.

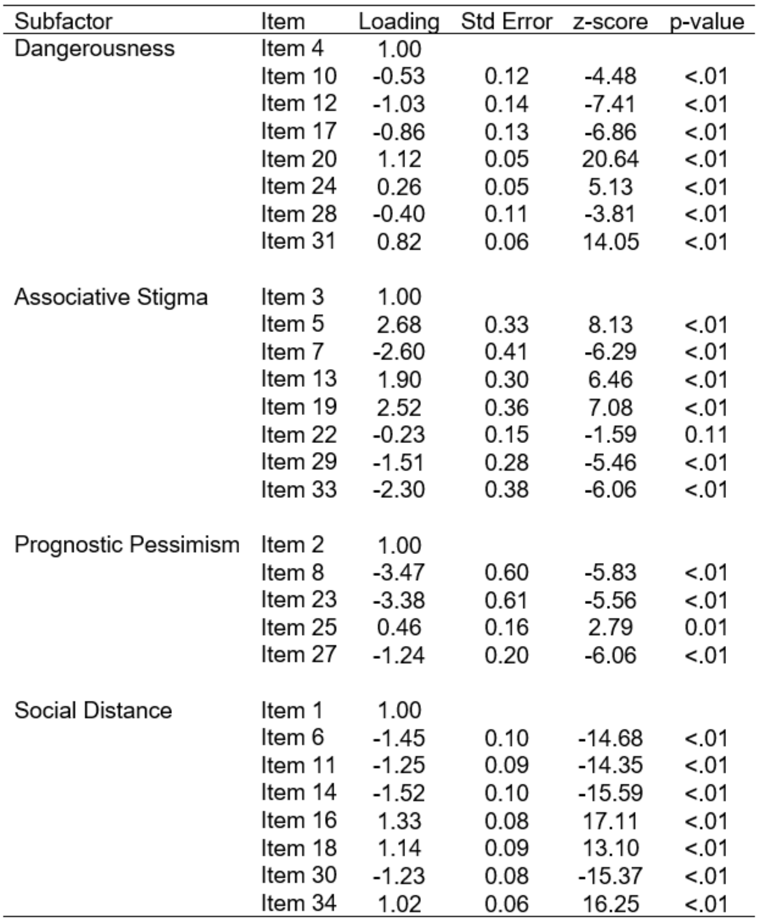
Stigma. After reading each vignette, participants were required to complete a series of questions assessing various forms of stigma (Bennett et al., 2008). Eight questions measured associative stigma (e.g., “If my partner had a sibling with Jane's problems it would make me more wary of having children with them”, SB Cronbach's α = .723, SP Cronbach's α = .726, DB Cronbach's α = .735, DP Cronbach's α = .723), eight questions measured perceived dangerousness (e.g., “There is no reason why Jane should not be trusted around vulnerable people, such as children”, SB Cronbach's α = .710, SP Cronbach's α = .721, DB Cronbach's α = .656, DP Cronbach's α = .588), eight questions measured social distance (e.g., “I wouldn't mind if a friend invited Jane along on a holiday we had booked together”, SB Cronbach's α = .863, SP Cronbach's α = .881, DB Cronbach's α = .835, DP Cronbach's α = .805) and five questions measured prognostic pessimism (e.g., “I don't think Jane could ever be completely 'cured', although she could probably find ways to manage her symptoms”, SB Cronbach's α = .555, SP Cronbach's α = .594, DB Cronbach's α = .472, DP Cronbach's α = .430). Each scale was scored on a 1 (strongly disagree) to 5 (strongly agree) Likert scale.

Psychological Essentialism. We employed a single-item measure of essentialism (i.e., “I believe there is something about [name] that makes them fundamentally different from most people”). This item was derived from Link and Phelan’s (2001, 2013) and Kvaale, Gottdiener, and, Haslam’s (2013) work on the stigma process. Participants responded either agree or disagree to the single item essentialism scale.

RESULTS

Responses on the essentialism measure (agree, disagree) were submitted to a Log-Linear Analysis (LLA) with Vignette (SB, SP, DB, and DP) and Major (Psychology, Other) as factors. Responses on the essentialism scale did not differ as a function of Major, $G^2(3) = .0$, $p = 1$, but did differ as a function of Vignette, $G^2(3) = 99.96$, $p < .001$. Agreement that the individual in the vignette was fundamentally different from other people was highest for the Schizophrenia – Biological (SB) vignette (Psychology = 76%, Other = 74%), followed by the Schizophrenia – Psychosocial (SP) vignette (Psychology = 67%, Other = 68%), then the Depression – Biological (DB) (Psychology = 52%, Other = 49%), and Depression – Psychosocial (DP) vignettes (Psychology = 41%, Other = 36%).

Table 1. Factor loadings and significance levels for the four stigma subfactors.



Subfactor	Item	Loading	Std Error	z-score	p-value
Dangerousness	Item 4	1.00			
	Item 10	-0.53	0.12	-4.48	<.01
	Item 12	-1.03	0.14	-7.41	<.01
	Item 17	-0.86	0.13	-6.86	<.01
	Item 20	1.12	0.05	20.64	<.01
	Item 24	0.26	0.05	5.13	<.01
	Item 28	-0.40	0.11	-3.81	<.01
	Item 31	0.82	0.06	14.05	<.01
Associative Stigma	Item 3	1.00			
	Item 5	2.68	0.33	8.13	<.01
	Item 7	-2.60	0.41	-6.29	<.01
	Item 13	1.90	0.30	6.46	<.01
	Item 19	2.52	0.36	7.08	<.01
	Item 22	-0.23	0.15	-1.59	0.11
	Item 29	-1.51	0.28	-5.46	<.01
	Item 33	-2.30	0.38	-6.06	<.01
Prognostic Pessimism	Item 2	1.00			
	Item 8	-3.47	0.60	-5.83	<.01
	Item 23	-3.38	0.61	-5.56	<.01
	Item 25	0.46	0.16	2.79	0.01
	Item 27	-1.24	0.20	-6.06	<.01
Social Distance	Item 1	1.00			
	Item 6	-1.45	0.10	-14.68	<.01
	Item 11	-1.25	0.09	-14.35	<.01
	Item 14	-1.52	0.10	-15.59	<.01
	Item 16	1.33	0.08	17.11	<.01
	Item 18	1.14	0.09	13.10	<.01
	Item 30	-1.23	0.08	-15.37	<.01
	Item 34	1.02	0.06	16.25	<.01

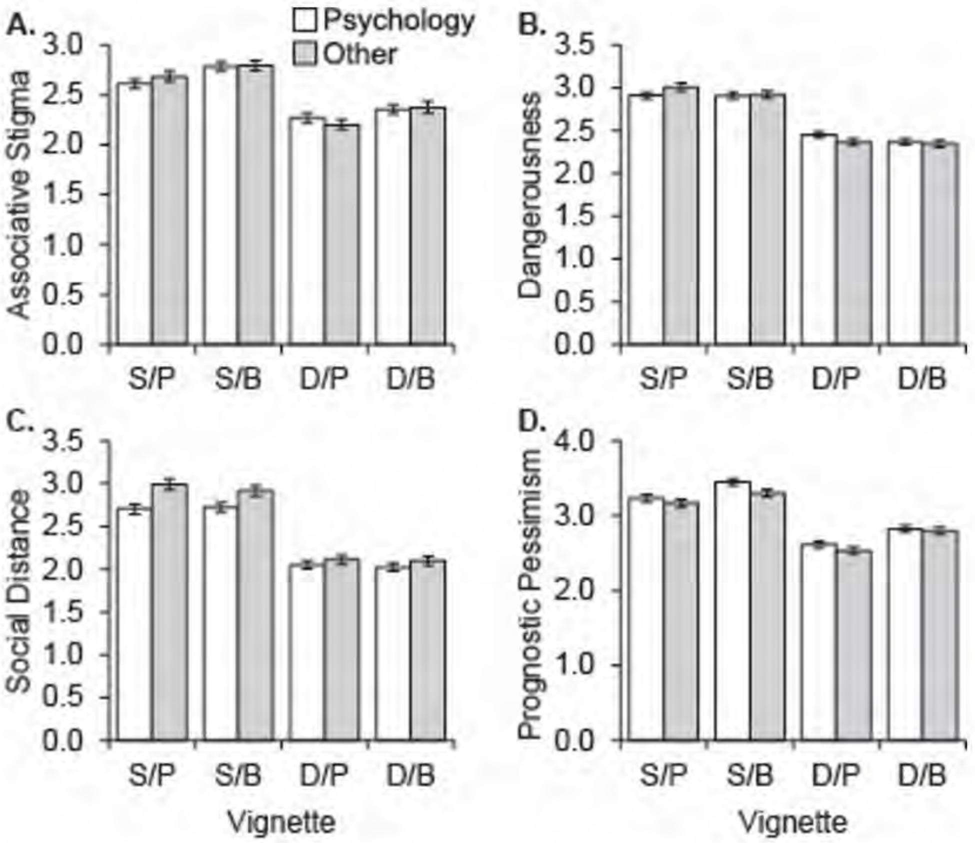


Figure 1. Mean responses to the associative stigma (A), perceived dangerousness (B), desire for social distance (C), and prognostic pessimism (D) measures. Error bars represent ±1 standard error of the mean.

The factor structure of the stigma scale was tested using a Confirmatory Factor Analysis (CFA) using a maximum likelihood estimator and clustered by participant to account for repeated measures (i.e., the four vignettes). Each item was loaded onto one of four subfactors which, in turn, were loaded onto an overall stigma factor. Fit was determined using Root Mean Square Error Approximation (RMSEA) and Comparative Fit Index (CFI). The resulting robust RMSEA of 0.068 suggested good fit (where less than 0.1 is typically good fit). A CFI of 0.75, however, is lower than what is typical considered good fit (0.9). Further investigation indicated that this was due to item 22 not significantly loading onto the associative stigma subfactor. For this reason, item 22 was removed from our main analysis. One item in the prognostic pessimism subfactor, and three items in the dangerousness subfactor also yielded low factor loadings (Table 1). These items were, however, significant and were therefore included in their respective subfactor. Means were calculated for each form of stigma and submitted to separate repeated measures ANOVAs with Illness (Schizophrenia, Depression) and Explanation (Biological, Psychosocial) as within-participant factors and Major (Psychology, Other) as a between-participant factor.

For associative stigma, there were main effects of Illness, $F(1, 292) = 217.905$, $p < .001$, *partial* $\eta^2 = .427$, and Explanation, $F(1, 292) = 36.966$, $p < .001$, *partial* $\eta^2 = .112$, but not Major, $F(1, 292) = .027$, $p = .870$, *partial* $\eta^2 = .000$. The main effect of illness reflects higher levels of associative stigma for schizophrenia relative to depression (Figure 1a). Further, the main effect of explanation reflects higher levels of associative stigma for the biological, relative to psychosocial, explanation (Figure 1a). No interactions were significant, all *ps* > .113.

For perceived dangerousness, there were main effects of Illness, $F(1, 292) = 362.011$, $p < .001$, *partial* $\eta^2 = .554$, and Explanation, $F(1, 292) = 7.674$, $p = .006$, *partial* $\eta^2 = .026$, but not Major, $F(1, 292) = .000$, $p = .998$, *partial* $\eta^2 = .000$. These main effects were qualified by a significant Illness by Explanation by Major interaction, $F(1, 292) = 4.061$, $p = .045$, *partial* $\eta^2 = .014$. To investigate the interaction effect we conducted separate repeated measures ANOVAs for each explanation, with Illness and Major as factors. For the biological explanation, there was a main effect of Illness, $F(1, 292) = 284.050$, $p < .001$, *partial* $\eta^2 = .493$, with higher levels of perceived dangerousness for schizophrenia relative to depression (Figure 1b). There was no main effect of Major, $F(1, 292) = .016$, $p = .900$, *partial* $\eta^2 = .000$, or Illness by Major interaction, $F(1, 292) = .339$, $p = .561$, *partial* $\eta^2 = .001$. For the psychosocial explanation, there was a main effect of Illness, $F(1, 292) = 243.541$, $p < .001$, *partial* $\eta^2 = .455$, no main effect of Major, $F(1, 292) = .018$, $p = .893$, *partial* $\eta^2 = .000$, qualified by an Illness by Major interaction, $F(1, 292) = 6.689$, $p = .010$, *partial* $\eta^2 = .022$. The interaction was driven by psychology majors reporting slightly higher levels of perceived dangerousness following the DP vignette, and slightly lower levels following the SP vignette, relative to non-psychology majors (Figure 1b). No other interactions were significant, all *ps* > .058.

For social distance, there were main effects of Illness, $F(1, 292) = 505.284$, $p < .001$, *partial* $\eta^2 = .634$, and Major, $F(1, 292) = 5.094$, $p = .025$, *partial* $\eta^2 = .017$, but not Explanation, $F(1, 292) = 1.838$, $p = .176$, *partial* $\eta^2 = .006$. In addition, there was a significant Illness by Major interaction, $F(1, 292) = 6.416$, $p = .012$, *partial* $\eta^2 = .021$. To investigate the interaction effect we conducted separate repeated measures ANOVAs for each illness, with Explanation and Major as factors. For schizophrenia, there was no main effect of Explanation, $F(1, 292) = 1.095$, $p = .296$, *partial* $\eta^2 = .004$, a main effect of Major, $F(1, 292) = 8.219$, $p = .004$, *partial* $\eta^2 = .027$, but no Explanation by Major interaction, $F(1, 292) = 3.078$, $p = .080$, *partial* $\eta^2 = .010$. For depression, there was no main effect of Explanation, $F(1, 292) = .802$, $p = .371$, *partial* $\eta^2 = .003$, or Major, $F(1, 292) = .978$, $p = .324$, *partial* $\eta^2 = .003$, and no Explanation by Major interaction, $F(1, 292) = .124$, $p = .725$, *partial* $\eta^2 = .000$. Thus, the main effect of major for schizophrenia, but not depression, reflected a higher desire for social distance by non-psychology majors (Figure 1c). No other interactions were significant, all *ps* > .127.

For prognostic pessimism, there were main effects of Illness, $F(1, 292) = 343.771$, $p < .001$, *partial* $\eta^2 = .541$, and Explanation, $F(1, 292) = 81.392$, $p < .001$, *partial* $\eta^2 = .218$, but not Major, $F(1, 292) = 2.321$, $p = .129$, *partial* $\eta^2 = .008$. The main effect of illness reflects higher levels of prognostic pessimism for schizophrenia relative to depression (Figure 1d). Further, the main effect of explanation reflects higher levels of prognostic pessimism for the biological, relative to psychosocial, explanation (Figure 1d). No interactions were significant, all *ps* > .105.

DISCUSSION

Biological explanations of mental illness led to higher essentialist beliefs for both psychology and non-psychology students. Similarly, psychology and non-psychology students tended to report higher levels of stigma following the biological explanations. Specifically, for associative stigma and prognostic pessimism there was no difference between psychology and non-psychology students, nor any significant interaction effects, with students displaying higher levels of stigma for schizophrenia, relative to depression, and following a biological, relative to psychosocial, explanation. For potential dangerousness, non-psychology students' ratings were slightly higher than psychology students for the Schizophrenia – Psychosocial vignette. Similarly, for social distance, non-psychology students reported a higher desire for social distance following the Schizophrenia – Biological and Schizophrenia – Psychosocial vignettes. Thus, overall, psychology students display comparable (associative stigma and prognostic pessimism) or slightly lower (potential dangerousness and social distance) levels of stigma than non-psychology students.

The most consistent finding of the current study, and the one associated with large effect sizes, was that participants held more stigma for individuals with schizophrenia than individuals with depression. This finding is not unusual; schizophrenia has repeatedly been associated with more negative attitudes relative to other mental illnesses (Angermeyer & Matschinger, 2003; Wood, Birtel, Alsawy, Pyle, & Morrison, 2014). There are likely a number of reasons for this. First, even when paired with a psychosocial explanation, students had relatively high essentialist beliefs about people with schizophrenia. In addition, negative portrayals of schizophrenia in the media are relatively common (Gilmore & Hughes, 2019; Ross, Morgan, Jorm, & Reavley, 2019). For example, longitudinal studies conducted in the United States (McGinty, Kennedy-Hendricks, Choksy, & Barry, 2016), Japan (Kunitoh & Suzuki, 2015), the United Kingdom (Anderson, Robinson, Krooupa, & Henderson, 2020; Clement & Foster, 2008) and Canada (Whitley & Berry, 2013), demonstrate that individuals with schizophrenia continue to be portrayed as violent, dangerous and unpredictable in the news media. Moreover, fictional portrayals of people with schizophrenia, or people displaying symptoms of schizophrenia (e.g., psychosis), are typically negative (Domino, 1983; Owen, 2012; Perciful & Meyer, 2017; Scarf et al., 2020).

With respect to the explanation provided for each illness, a biological explanation increased associative stigma and prognostic pessimism, but had no impact on perceived dangerousness or desire for social distance. One explanation for this is that the impact of media portrayals of schizophrenia overshadows any impact of the explanation manipulation on perceived dangerousness or desire for social distance. Also, the biological explanation is not causally connected to the outcome. That is, irrespective of schizophrenia's biological or psychosocial basis, people with schizophrenia may be viewed as dangerous and thus increase desire for social distance. In contrast, the biological explanation can be causally connected to both associative stigma and prognostic pessimism. For example, associative stigma is linked to genetic understandings of causation and, when provided with a biological explanation, people may have assumed that the illness will be passed onto offspring (Bennett et al., 2008; Hinshaw, 2005). On a somewhat similar note, the biological explanation can be causally linked to prognostic pessimism, with this connection mediated by essentialist beliefs (e.g., the belief the illness is fixed).

The current study has several limitations. First, we focused solely on depression and schizophrenia. We focused on these two illnesses due to the fact they are widely known and are commonly used in studies investigating causal beliefs and stigma (Schomerus & Angermeyer, 2017). In the future, however, it would be interesting to include less serious illnesses or illnesses that are less familiar to the public. Second, we employed a single-item measure of essentialism (Phelan, 2005). Although this item is consistent with the terminology used by Link and Phelan (2001, 2013) and Kvaale et al. (2013), single-item scales generally lack the explanatory power of multi-item measures (Gosling, Rentfrow, & Swann, 2003; Riordan et al., 2020).

Conclusion

The current study demonstrates that biological and psychosocial explanations lead to comparable levels of essentialism in both psychology and non-psychology students. Moreover, with respect to prejudice, completing a psychology major is associated with comparable or slightly lower levels of stigma than that observed in non-psychology students. This latter finding is a positive reflection of the undergraduate teaching of psychology in New Zealand.

References

Anderson, C., Robinson, E. J., Krooupa, A.-M., & Henderson, C. (2020). Changes in newspaper coverage of mental illness from 2008 to 2016 in England. *Epidemiology and Psychiatric Sciences, 29*(e9), 1-8. doi:10.1017/S2045796018000720

Andreasen, N. C. (1984). *The Broken Brain: The Biological Revolution in Psychiatry*. New York, NY: Harper & Row Publishers Inc.

Angermeyer, M. C., & Matschinger, H. (2003). Public beliefs about schizophrenia and depression: similarities and differences. *Social Psychiatry and Psychiatric Epidemiology, 38*(9), 526-534. doi:10.1007/s00127-003-0676-6

Angermeyer, M. C., Matschinger, H., & Schomerus, G. (2013). Attitudes towards psychiatric treatment and people with mental illness: changes over two decades. *The British Journal of Psychiatry, 203*(2), 146-151. doi:10.1192/bjp.bp.112.122978

Bennett, L., Thirlaway, K., & Murray, A. J. (2008). The stigmatising implications of presenting schizophrenia as a genetic disease. *Journal of Genetic Counseling, 17*(6), 550-559. doi:10.1007/s10897-008-9178-8

Clement, S., & Foster, N. (2008). Newspaper reporting on schizophrenia: a content analysis of five national newspapers at two time points. *Schizophrenia Research, 98*(1-3), 178-183. doi:10.1016/j.schres.2007.09.028

Corrigan, P. W., & Bink, A. B. (2016). The stigma of mental illness. In H. S. Friedman (Ed.), *Encyclopedia ofMentalHealth* (2 ed., Vol. 4, pp. 230-234): Academic Press.

Corrigan, P. W., Markowitz, F. E., & Watson, A. C. (2004). Structural levels of mental illness stigma and discrimination. *Schizophrenia Bulletin, 30*(3), 481-491.

Dar-Nimrod, I., & Heine, S. J. (2011). Genetic essentialism: on the deceptive determinism of DNA. *Psychological Bulletin, 137*(5), 800-818. doi:10.1037/a0021860

Domino, G. (1983). Impact of the film,"One Flew Over the Cuckoo's Nest," on attitudes towards mental illness. *Psychological Reports, 53*(1), 179-182. doi:10.2466/pr0.1983.53.1.179

Gilmore, L., & Hughes, B. (2019). Perceptions of schizophrenia in the Australian community: 2005–2017. *Journal of Mental Health*. doi:10.1080/09638237.2019.1630720

Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality, 37*(6), 504-528. doi:10.1016/S0092-6566(03)00046-1

Green, D. E., McCormick, I. A., Walkey, F. H., & Taylor, A. J. (1987). Community attitudes to mental illness in New Zealand twenty-two years on. *Social Science & Medicine, 24*(5), 417-422. doi:10.1016/0277-9536(87)90214-0

Harrington, A. (2019). *Mind fixers: Psychiatry's troubled search for the biology of mental illness*. New York, NY: W. W. Norton & Company.

Haslam, N., & Kvaale, E. P. (2015). Biogenetic explanations of mental disorder: The mixed-blessings model. *Current Directions in Psychological Science, 24*(5), 399-404. doi:10.1177/0963721415588082

Hinshaw, S. P. (2005). The stigmatization of mental illness in children and parents: Developmental issues, family concerns, and research needs. *Journal of Child Psychology and Psychiatry, 46*(7), 714-734. doi:10.1111/j.1469-7610.2005.01456.x

Kenny, A., Bizumic, B., & Griffiths, K. M. (2018). The Prejudice towards People with Mental Illness (PPMI) scale: structure and validity. *BMC Psychiatry, 18*(293), 1-13. doi:10.1186/s12888-018-1871-z

Kunitoh, N., & Suzuki, W. (2015). Portrayal of mental illness in Japanese newspapers, 2001-2014. *Activitas Nervosa Superior Rediviva, 57*(3), 77-82.

Kvaale, E. P., Gottdiener, W. H., & Haslam, N. (2013). Biogenetic explanations and stigma: A meta-analytic review of associations among laypeople. *Social Science & Medicine, 96*, 95-103. doi:10.1016/j.socscimed.2013.07.017

Lebowitz, M. S. (2014). Biological conceptualizations of mental disorders among affected individuals: A review of correlates and consequences. *Clinical Psychology: Science and Practice, 21*(1), 67-83. doi:10.1111/cpsp.12056

Lebowitz, M. S., & Ahn, W.-k. (2014). Effects of biological explanations for mental disorders on clinicians' empathy. *Proceedings of the National Academy of Sciences, 111*(50), 17786-17790. doi:10.1073/pnas.1414058111

Link, B. G., & Phelan, J. C. (2001). Conceptualizing Stigma. *Annual Review of Sociology, 27*(1), 363-385. doi:10.1146/annurev.soc.27.1.363

Link, B. G., & Phelan, J. C. (2013). Labeling and stigma. In C. S. Aneshensel, J. C. Phelan, & A. Bierman (Eds.), *Handbook of the Sociology of Mental Health* (pp. 525-541). Dordrecht: Springer.

McGinty, E. E., Kennedy-Hendricks, A., Choksy, S., & Barry, C. L. (2016). Trends in news media coverage of mental illness in the United States: 1995–2014. *Health Affairs, 35*(6), 1121-1129. doi:10.1377/hlthaff.2016.0011

Mehta, N., Kassam, A., Leese, M., Butler, G., & Thornicroft, G. (2009). Public attitudes towards people with mental illness in England and Scotland, 1994–2003. *The British Journal of Psychiatry, 194*(3), 278-284. doi:10.1192/bjp.bp.108.052654

Owen, P. R. (2012). Portrayals of schizophrenia by entertainment media: a content analysis of contemporary movies. *Psychiatric Services, 63*(7), 655-659. doi:10.1176/appi.ps.201100371

Patten, D. (1992). *Public Attitudes to Mental Illness*. Wellington, New Zealand: Health Research Services.

Perciful, M. S., & Meyer, C. (2017). The impact of films on viewer attitudes towards people with schizophrenia. *Current Psychology, 36*(3), 483-493. doi:10.1007/s12144-016-9436-0

Pescosolido, B. A., Martin, J. K., Long, J. S., Medina, T. R., Phelan, J. C., & Link, B. G. (2010). "A disease like any other"? A decade of change in public reactions to schizophrenia, depression, and alcohol dependence.

American Journal of Psychiatry, 167(11), 1321-1330. doi:10.1176/appi.ajp.2010.09121743

Phelan, J. C. (2005). Geneticization of deviant behavior and consequences for stigma: The case of mental illness. *Journal of Health and Social Behavior, 46*(4), 307-322. doi:10.1177/002214650504600401

Proctor, C., & Keil, F. C. (2006). *Differences in deference: Essences and insights.* Paper presented at the Proceedings of the 28th Annual Conference of the Cognitive Science Society, Mahwah, NJ.

Read, J., & Harré, N. (2001). The role of biological and genetic causal beliefs in the stigmatisation of'mental patients'. *Journal of Mental Health, 10*(2), 223-235. doi:10.1080/09638230020023778

Read, J., & Law, A. (1999). The relationship of causal beliefs and contact with users of mental health services to attitudes to the'mentally ill'. *International Journal of Social Psychiatry, 45*(3), 216-229.

Reavley, N. J., & Jorm, A. F. (2012). Stigmatising attitudes towards people with mental disorders: changes in Australia over 8 years. *Psychiatry Research, 197*(3), 302-306. doi:10.1016/j.psychres.2012.01.011

Riordan, B. C., Cody, L., Flett, J. A. M., Conner, T. S., Hunter, J., & Scarf, D. (2020). The development of a single item FoMO (Fear of Missing Out) scale. *Current Psychology, 39*(4), 1215-1220. doi:10.1007/s12144-018-9824-8

Roskies, A. (2002). Neuroethics for the new millenium. *Neuron, 35*(1), 21-23. doi:10.1016/S0896-6273(02)00763-8

Ross, A. M., Morgan, A. J., Jorm, A. F., & Reavley, N. J. (2019). A systematic review of the impact of media reports of severe mental illness on stigma and discrimination, and interventions that aim to mitigate any adverse impact. *Social Psychiatry and Psychiatric Epidemiology, 54*(1), 11-31. doi:10.1007/s00127-018-1608-9

Ryan, K. (2017). Review of mental health standards for recruiting [Press release]. Retrieved from https://www.police.govt.nz/news/release/review-mental-health-standards-recruiting

Scarf, D., Zimmerman, H., Winter, T., Boden, H., Graham, S., Riordan, B. C., & Hunter, J. A. (2020). Association of viewing the filmes Joker or Terminator: Dark Fate with prejudice toward individuals with mental illness. *JAMA Network Open, in press*. doi:10.1001/jamanetworkopen.2020.3423

1

.

Schnittker, J. (2008). An uncertain revolution: Why the rise of a genetic model of mental illness has not increased tolerance. *Social Science & Medicine, 67*(9), 1370-1381. doi:10.1016/j.socscimed.2008.07.007

Schomerus, G., & Angermeyer, M. C. (2017). Changes of Stigma over Time. In W. Gaebel, W. Rössler, & N. Sartorius (Eds.), *The Stigma of Mental Illness - End of the Story?* (pp. 157-172). Cham: Springer International Publishing.

Schomerus, G., Schwahn, C., Holzinger, A., Corrigan, P. W., Grabe, H. J., Carta, M. G., & Angermeyer, M. C. (2012). Evolution of public attitudes about mental illness: A systematic review and meta-analysis. *Acta Psychiatrica Scandinavica, 125*(6), 440-452. doi:10.1111/j.1600-0447.2012.01826.x

Schultz, W. (2018). Neuroessentialism: Theoretical and clinical considerations. *Journal of Humanistic Psychology, 58*(6), 607-639. doi:10.1177/0022167815617296

Walker, I., & Read, J. (2002). The differential effectiveness of psychosocial and biogenetic causal explanations in reducing negative attitudes toward "mental illness". *Psychiatry, 65*(4), 313-325. doi:10.1521/psyc.65.4.313.20238

Weiner, B. (1993). On sin versus sickness: A theory of perceived responsibility and social motivation. *American Psychologist, 48*(9), 957-965. doi:10.1037/0003-066X.48.9.957

Whitley, R., & Berry, S. (2013). Trends in newspaper coverage of mental illness in Canada: 2005–2010. *The Canadian Journal of Psychiatry, 58*(2), 107-112. doi:10.1177/070674371305800208

Wood, L., Birtel, M., Alsawy, S., Pyle, M., & Morrison, A. (2014). Public perceptions of stigma towards people with schizophrenia, depression, and anxiety. *Psychiatry Research, 220*(1-2), 604-608. doi:10.1016/j.psychres.2014.07.012

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Aspirations for bilingualism in Aotearoa New Zealand: Pākehā motivations for learning te reo Māori

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Initiatives to increase the use and normalisation of te reo Māori throughout wider society in Aotearoa involve more Pākehā learners and users of te reo Māori. This study explores language motivations of Pākehā (New Zealand Europeans) who have begun learning te reo Māori as a second language through interviews with 13 Pākehā participants with varying levels of Māori language proficiency. Findings from this small-scale qualitative study indicated that some participants viewed Māori culture as a contributing factor to their concept of a national identity, inclusive of biculturalism. Furthermore, motivations to reject negatively framed colonial derived narratives about Māori, and reduce levels of cultural ignorance by Pākehā participants toward Māori, were discussed. Results of this study brought to light distinct language motivations of Pākehā compared with other second language learners of non-indigenous languages. Seeing other Pākehā learners of te reo provided participants with a sense of permission to learn, feelings of language achievability and social approval for the behaviour.

Keywords: *Te reo Māori, language learner motivations, biculturalism, national identity*

Introduction

Te reo Māori provides valuable insights into the worldview of the culture from which the language is derived. As indigenous languages around the world continue to be threatened by dominant languages (Simons & Lewis, 2013), knowledge surrounding the choice to use indigenous languages by majority group members is particularly useful for language revitalisation purposes (Higgins, Rewi, & Olsen-Reeder, 2014). Te reo Māori, like other indigenous languages, continues to be exposed to factors which threaten its continued use. One such factor is associated with the limited spaces in which the language is used, largely due to the dominance of Pākehā cultural and language norms in the majority of public domains (Ahu, 2012). This particular barrier has been acknowledged in the most current Māori language strategy (Te Puni Kōkiri, 2019), whereby the goal of the strategy is to increase the use of te reo Māori by both Māori and non-Māori in private and public domains. In order to achieve normalised use[1] of te reo Māori, te reo Māori will need to be more widely used by all members of society (Higgins, 2016; Te Puni Kōkiri, 2019). This study explores some of the motivations that Pākehā, have for learning and using te reo Māori.

Pākehā learners of te reo Māori are distinct from other members of their cultural group. This group of language learners are choosing to enter into learning situations (Māori language classes) where their language and cultural norms are secondary to those of Māori (Mitcalfe, 2008). With the exception of a few studies (Brown, 2011; Jellie, 2001; Mitcalfe, 2008), there are few qualitative studies that explore the motivations and experiences that Pākehā have in the context of bilingualism in te reo Māori and English (Albury, 2015; Hepi, 2008; Nelson, 2018). In the context of motivation, Nelson's (2018) qualitative study of 14 participants demonstrated that family values, and childhood exposure and experiences contributed to Pākehā adult learner motivations to acquire te reo Māori. Furthermore, societal attitudes coupled with a desire to uphold bicultural partnerships ("wanting to honour the Treaty" p. 14, 2018) were highlighted as key motivations.

An earlier mixed methods study by Jellie (2001) noted that participants in her study were motivated to learn te reo Māori for reasons relating to national identity, an identity that is inclusive of Māori. Furthermore, in a qualitative study of Pākehā who engaged with Māori cultural learning context, Mitcalfe (2008) indicated that her participants viewed being Pākehā as being connected to Māori people, language and culture. Within Mitcalfe's description of Pākehā identity from those who had formed meaningful relationships with Māori, an understanding of te reo Māori and the history of Aotearoa was considered to be important. In addition, Pākehā in this study were aware of the negotiated space between dominant Pākehā narratives toward Māori, and the role of Pākehā privilege.

Recent reports indicate that many beginner-level Māori language courses in 2018 reached full capacity with waitlists in some areas so long that the potential students were turned away until the following year (Hurihanganui, 2018). At Victoria University of Wellington, where the current study was based, beginner-level courses in te reo Māori enrolments have increased from 80 in 2010 to 184 in 2018 with over 220 students enrolling again in 2020. Alongside the many years of investment made by Māori

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[1] In the context of te reo Māori, normalised Māori language refers to a reduced feelings of abnormality when the language is used by a speaker or heard by a listener. The language is used freely without restrictions, including emotional restrictions felt by the user or listener. It also refers to the reduction in or absence of state imposed restrictions as discussed by Ahu (2012).

language advocates, a recent increased mainstream media presence of te reo Māori use by both Māori and non-Māori, an increase in Māori language popular music, and political shifts at a global level are perhaps some of the reasons for a surge in Pākehā interest in te reo Māori.

There are a multitude of reasons why individuals learn a second language. Social psychology and intergroup relations are at the centre of some of the most widely recognised language motivation theories proposed by Robert Gardner (Rubenfeld & Clément, 2019). The concept of motivation as defined by Gardner (1985, p. 10) involves "the combination of effort plus desire to achieve the goal of learning the language plus favourable attitudes toward learning the language." It is perhaps a recent shift in 'favourable attitudes' towards te reo Māori at a national level that has contributed to an increased uptake and motivation in Māori language learning. There are challenges in the relationship between Māori and non-Māori that may interact with language learning processes that are documented as follows.

Colonisation and Māori language loss

It is well recognised that languages are connected to their speakers. When its speakers are dispossessed, the language suffers. Well-regarded criminal justice advocate Moana Jackson (2019) indicates that ideologies of white supremacy were entrenched in the foundational processes of colonisation. Applying the Doctrine of Discovery, colonisers laid claim to indigenous lands under the assumptions that indigenous lands were unoccupied prior to colonial 'discovery', and that indigenous peoples were inferior and uncivilised, has been used to subjugate indigenous peoples globally for hundreds of years (Ngata, 2019). The colonisation of Aotearoa included violent methods of dispossession, involving the large-scale confiscation of homelands (O'Malley, 2016). Many iwi were prevented from living self-sustainably due to unjust state sanctioned methods of land acquisition. Within these processes, the acquisition of, and reliance on English, was necessary for iwi in order to retain lands through drawn-out court proceedings and communication with the Government (Spolsky, 2003). Loss of a secure resource base coupled with the exclusion by force of te reo Māori from native schools (Waitangi Tribunal, 1986), had significant negative impacts on language maintenance (Waitangi Tribunal, 2011).

The impacts of white supremacy and colonisation has had lasting impacts on indigenous languages globally and te reo Māori has not been exempt from such damaging effects. The issues surrounding language loss and revitalisation are part of wider historical and political struggles. Māori language advocates have fought for years to ensure the survival of te reo Māori and have created multiple avenues that allow Māori language to be present in the current day (Higgins, Rewi, & Olsen-Reeder, 2014). In contemporary times, it is possible that some Pākehā who engage with Māori language learning may be wanting to reject notions of white supremacy and the preference for separatism entrenched underlying colonial ideologies.

Pākehā engagement and motivations for te reo Māori acquisition

The Government's goal outlined in Te Maihi Karauna (Te Puni Kōkiri, 2019) is to increase the number of Māori language speakers to one million by 2040. Applying the UNESCO framework (Moseley, 2010) for determining language endangerment, a group of Māori language experts (Te Paepae Motuhake) declared te reo Māori as falling between the categories of 'definitely endangered' and 'severely endangered' (Reedy et al., 2011). This means that "Children no longer learn the language as a mother tongue in the home" and that "The language is spoken by grandparents and older generations; while the parent generation may understand it, they do not speak it to children or among themselves" (Moseley, 2010). The census data from 2013 shows older Māori are more likely to be language speakers than younger generations confirming the assertions made by Te Paepae Motuhake. Comparatively, Pākehā in older age groups were unlikely to speak te reo at all, however, the rates of Pākehā learners/speakers of te reo Māori are increasing for younger age groups but are still low, with the national total of Pākehā speakers of te reo Māori being merely .83% (Statistics New Zealand, 2013; Te Puni Kōkiri, 2019). Furthermore, how a competent a 'speaker' of te reo Māori is being defined is not clear in the report (Te Puni Kōkiri, 2019).

Pākehā motivations for wanting to learn te reo Māori are likely to have a relationship with the concept of investment. Norton's (2000) concept of investment brings together the social and historical relationship that a learner may have with a given target language. Applying the concept of investment to the case of te reo Māori and Pākehā CSL2 learners[2], the historical relationship the learner has with Māori and te reo Māori, as well as their imagined future, are interwoven. These relationships may contribute to possible motivations for the initial behaviour of language learning, and the persistence that they apply over time to acquire a working use of the language as Nelson (2018) indicates in her research with Pākehā learners and speakers of te reo Māori. It is possible that Pākehā who are investing in learning te reo Māori are aware that there are certain benefits associated with learning, an additional feature of the concept of investment (Norton, 2000, 2019).

One of the possible benefits for Pākehā who are learners of te reo Māori is that they are likely to become meaningfully connected with Māori, which could contribute to some learners increased desired to 'invest' in the language. Although Māori and Pākehā have a partnership through the Treaty of Waitangi[3], the extent to which Māori and Pākehā interact varies considerably. One of the barriers that interrupts the relationships between Māori and Pākehā is the negative ways in which Māori are portrayed in mainstream media (Moewaka Barnes A. et

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[2] Colonial Settler language learners (CSL2) of an indigenous language are distinguishable as learners from a cultural group that does not share a genealogical relationship with the target language, but does inovle a shared history as a member of the colonial settler population. The title of colonial settler has been applied by Huygens (2011) to Pākehā.

[3] The Treaty of Waitangi is the founding partnership agreement signed by some rangatira Māori (Māori chiefs/representatives) and colonial British Crown officials (Orange, 2015).

al., 2012, Nairn et al., 2012). Pākehā perceptions toward Māori at a national group level are largely informed by long-standing colonial narratives that vilify Māori (McIntosh, 2005). Nairn and McCreanor (1991) have explored the fact that there are specific colonial narratives (labelled as the 'Standard Story') which pigeonhole Māori people in stereotypical ways and have the impact of maintaining inequality between Pākehā and Māori. The Standard Story highlights how individuals are primed to take on certain beliefs about Māori, which have deep-rooted historical underpinnings. Kirkwood and colleagues (2005) extended this research in their discourse analysis study of submissions made to the New Zealand Government regarding the seabed and foreshore legislation. The study indicated that, while the majority of submissions analysed from Pākehā follow the Standard Story to refute Māori claims to tino rangatiratanga (self-determination), there are also a small group of Pākehā who occupy a marginal position within their cultural ingroup, and utilise the Treaty of Waitangi as a means of legitimising their identity position as being New Zealanders. It is perhaps those Pākehā who are on the margins that seek to invest in their relationships with Māori who may be more prepared to reject the Standard Story. When Pākehā choose to occupy a bicultural identity, their relationship with Māori becomes a central component to the achieving this identity type. It is likely that a motivating factor for some Pākehā CSL2 learners will include a meaningful relationship with Māori through language attainment.

While the desire to create meaning relationships with Māori is an ideal case motivation type for bicultural relations in Aotearoa, it is also possible that those who have only recently begun their Māori language journey would not hold such motivations. Deep levels of analysis about biculturalism and the impact of colonialism on te reo Māori may not be a language motivation, particularly for those who may be learning te reo Māori for reasons completely unrelated to identity or politics.

In addition to motivations which are based from within the confines of the Aotearoa New Zealand context, some motivations Pākehā have for learning te reo Māori are likely to correspond with L2 motivation international literature. Motivations explored within this study are likely to be connected with identity and investment (see Norton, 2019). While this is a small-scale study, it is likely that individuals will discuss learning te reo Māori in the context of their bicultural commitment and relationships with Māori.

METHODS

Participants

Māori language learners who identified as either New Zealand European or Pākehā were included in this study[4]. A total of 13 individuals participated; six identified as male and seven female. Participants had a mean age of 25.7 years with ages ranging from 20 to 55. For the purposes of this study, participants are categorised into three language groups: beginners (n = 5), intermediate (n = 4) and advanced (n = 4). Borrowing from Gardner's (2007, p. 12) stages of language acquisition, those considered to be beginners would be at the Elemental phase, where learning is highly focused on vocabulary, grammar and pronunciation. Those in the intermediate category might be in the Consolidation phase, whereby "some degree of familiarity with the language is achieved" (p.12). Finally, the advanced group included those in the Conscious Expression phase, where the participant was able to "use the language but with a great deal of conscious effort" (p.12). As this group of participants were still within the undergraduate level of study, it is highly unlikely that any of the participants could be thought of as falling within the Automaticity of Thought phase. However, te reo Māori was the only socially accepted language spoken in the intermediate and advanced classes.

Participants were all university students; therefore, it is likely that they were of similar socio-economic standing. Diversity within this small group of participants cannot be assumed.

Measures

Semi-structured interview schedules were designed using a method of triangulation "where multiple data sources provide information on the same issue", which has been effective in Action Research, where the processes of change are a central concern (Sixsmith & Daniels, 2011, p. 28). A number theories (L2 specific and those from social psychology) provided inspiration for various sections of the interview schedule (Dörnyei & Schmidt, 2001; Fishman & García, 2010; Gardner, 2007; Giles & Johnson, 1987; Houkamau & Sibley, 2010; Ushioda & Dörnyei, 2009). In addition, informal discussions with Pākehā learners of te reo Māori helped to design the interview schedule along with research conducted with Māori heritage language learners (Te Huia, 2017). Examples of questions asked during interviews included "What led you to learn te reo Māori?" and "How would you best describe your relationship with the Māori community prior to coming to learning te reo Māori?" The interview schedule included eight focus areas: motivation, social support, benefits from language learning, connection with the Māori speaker community, the impact of language on identity and cultural efficacy, socio-political consciousness, language anxiety, and target language goals.

Procedure

During language classes, information sheets were provided to potential participants. Those interested in the study made contact with the lead researcher via email. A post-graduate male research assistant undertook the interviews to reduce power imbalances between the interviewer and interviewee, as the lead researcher is a lecturer in the Māori language programme. This practice is consistent with the Kaupapa Māori method of power-sharing (Bishop & Glynn, 1999). As the researchers are Māori, and the language under consideration is te reo

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[4] Although two individuals indicated that they were New Zealand European (NZE) the majority chose to identify as Pākehā, therefore, rather than differentiating these two individuals who identified as NZE, the term Pākehā will be applied when discussing generalisable points made by the participant group.

Māori, aspects of Kaupapa Māori methodology were applied. Interviews were an average of 46.7 minutes long and ranged between 21 and 75 minutes. The lead researcher and research assistant discussed the interviews in depth between interviews, providing the research assistant with guidance about future potential follow-up questions.

Participants were gifted a $20 music voucher for their participation. Interviews were digitally recorded then transcribed and sent back to participants for approval, ensuring that the participant was comfortable with the material disclosed in the interview. This practice reflects the Kaupapa Māori principle Kaua e takahia te mana o te tangata (do not trample over the mana (dignity, humanity) of people) outlined by Smith (1999, p. 120). Participants either chose a pseudonym or one was appointed to them. The decision to use pseudonyms rather than participant numbers was made to enhance a connection between the reader and the participant's views. The Victoria University of Wellington Human Ethics Committee approved this study.

Analytic Process

Thematic analysis was a research method applied to the results (Braun & Clarke, 2006). Consistent with thematic analysis, the researcher listened to each recording twice to ensure familiarity with the content. A journal was used to make notes, including personal reflections, about each transcript. After making notes about each transcript, the NVivo software programme was used to generate initial nodes. Individual nodes were input using semantic references initially. These nodes included references such as: te reo as a marker of citizenship; refuting racism; understanding of Pākehā privilege[5]; and te reo as a marker of differentiation. Some nodes were removed, including intrinsic motivation, as well as some elements from the instrumental motivations as these could be explained without full quotes. From each of these nodes, themes were explored, identified and reviewed. These nodes were then grouped into larger clusters, refined, and named to include: bicultural identity as a motivation; providing a counter-position from the 'Standard Story'; real world incentives as language motivation; and the societal context: positive impact of knowing Pākehā speakers of te reo. These larger clusters contributed to the four major themes of this study. Within the review process, themes were assessed to ensure that the excerpts and subthemes were consistent within each of the themes, and that there was distinctiveness between themes.

ANALYSIS

Theme 1: Bicultural Identity as a Motivation

The desire to learn te reo Māori for reasons related to national identity was relayed by over half of participants (n = 7) in this study. The responses to why CSL2 learners engage with learning te reo Māori may highlight the desire of some Pākehā to enhance their sense of a bicultural national identity through creating a meaningful relationship with Māori.

> *Maria: For me it's always been an important part of being a New Zealander. […] I'm a lot more passionate about it because it's my… it's part of my identity… um, not all Europeans believe this. [Beginner]*

The quote above demonstrates a few points, including the participant's desire to claim te reo Māori, and effectively claiming Māori culture as part of her own identity. Second, the participant is differentiating herself from other New Zealand Europeans, creating a positive distinction.

For many participants, the concept that Māori culture is an 'important part of New Zealand' was raised. By the mere fact that participants are raising this overtly presents a case that it cannot be taken for granted as common knowledge.

> *John: Firstly, just the motivation that I believe Māori are... you know... a very important part of New Zealand society in the past and in the future and... The more that I know about it the more kind of full citizen I feel of Aotearoa, so that's one of the first and simplest motivations, I guess. [Intermediate]*

The point being made above indicates that, for some Pākehā, a relationship with Māori is a central part of claiming meaningful citizenship as a New Zealander. This observation reflects some of the findings from Mitcalfe (2008).

Notably, Pākehā who view a relationship with Māori culture as a core characteristic of defining a New Zealand national identity may be more inclined to view te reo Māori as a contributing factor to their own national identity.

> *Emily: If you're having a whole resurgence of Māori language and it always mattered to me as a New Zealander... why don't I know the culture of New Zealand? Because it's not English culture, it's New Zealand culture and Māori's a huge part of that. [Advanced]*

The point raised above discusses the role of Pākehā in the revitalisation of te reo Māori. Of interest, the participant discusses how New Zealanders are distinct from the English through their relationship with Māori. However, the difficulty highlighted in this quote indicates that Pākehā do not know a good deal about Māori language or culture.

Juxtaposed to participants who grew up with little knowledge about Māori language or a working knowledge of indigenous rights, a few CSL2 learners grew up with a greater level of critical awareness than others.

> *Michael: I was lucky enough to grow up in this sort of environment that was aware of things like by cultural privilege and indigenous rights and you know? I felt like… ah… well New Zealand obviously supports this idea of biculturalism that in reality, I mean Māori are forced to be bicultural, whereas Pākehā have the cultural privilege of deciding whether or not to learn the culture. So being aware*

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[5] These nodes refered to priviliges that Pākehā recieve as dominant group members. Such as the ability to take for granted that Pākehā cultural norms and values will be understood and applied in social interactions.

> *of that, I couldn't help but not, in a sense, try to learn more about Māoridom and obviously the language is something intrinsic to that. [Advanced]*

Michael (above) explains that part of learning te reo Māori requires CSL2 learners to experience a shift in power, whereby Pākehā learners in Māori-dominant areas become a minority. Learning te reo Māori, particularly to an advanced level, may contribute to CSL2 learners' rejection of a superficial bicultural relationship between Māori and Pākehā.

Theme 2: Providing a counter-position from the 'Standard Story'

Subtheme 1: Combating negative mainstream opinions of Māori

CSL2 learners are exposed to two sets of relationships: those with their Māori language learner cohort, as well as those from the mainstream. Being exposed to both groups allows CSL2 learners to view the discrepancies between how Māori are perceived by the mainstream versus interpersonal relationships that they create with their peer group. Results indicated that some participants were motivated to learn te reo Māori in order to dispel negative views toward Māori from the mainstream.

> *Erica: My father was definitely opinionated [laughs]… and choosing to not believe his [negative][6] opinions definitely has been a factor in learning te reo and believing that that's important, as a future, hopefully, teacher [laughs] in te reo Māori. [Beginner]*

Erica's comment above may also indicate a shift in attitudes between generations. It appears that Erica's view of the future or, potentially, her ideal self, is one that is supportive of using te reo Māori and rejecting of the negative views held by her father.

There were four participants who had intentions of being educators, and this impacted on their motivations for learning. A number of CSL2 learners in this study explained that mainstream views toward Māori were negatively biased. Matthew (below) explains that a motivation for learning te reo Māori was to combat such opinions.

> *Matthew: I now just wanna go out there and tell people. You know… like… how it is really… like what I've learned, you know? And maybe that might change their perceptions. I mean, not everyone has a negative perception of Māori, but there are things out there that are pushing for that negative perception. [Advanced]*

Subtheme 2: Motivation to decrease cultural ignorance

Some participants highlighted how being ignorant about Māori culture and language contributed to their desire to increase their knowledge in this area.

> *Kate: It would be nice for me to able to at least have something to say [in Māori language speaking contexts]… not just sit there and be like "I'm sorry, I don't actually have a clue what you're saying". [Beginner]*

The participant above acknowledges that the ability to speak te reo Māori allows individuals to participate in the culture. This participant continues by explaining:

> *Kate: I don't want to be naïve to it all and, you know, this is part of New Zealand as much as everything else so I'd really like to learn and get myself immersed in it more. [Beginner]*

Some participants were self-aware about their limited awareness about Māori culture and language. The fact that some CSL2 learners were uncomfortable about their level of ignorance lends to a shift in belief about the societal expectations about Pākehā awareness of te reo Māori.

> *Sally: I kind of just hated the fact that I was so ignorant about the language and the culture… like I disliked being so completely like… ignorant and not knowing anything about it, so it's good to get a bit educated about it, I think. [Beginner]*

Some participants explained that they had experienced being in situations where Māori language or knowledge was expected in certain contexts, but that there was a tokenistic use of Māori cultural practices by those who are unaware of how to correctly perform these tasks.

> *Emily: When someone says "Look, I'm gonna do a pōwhiri (Māori ceremonial welcome), anyone know how to do that?" So people doing cultural gestures without actually knowing why or knowing how [...] I used to get really annoyed. [Advanced*]

Participants acknowledged being privy to expressions of tokenism demonstrated by Pākehā. Although participants did not tend to un-pack why tokenistic behaviours were problematic, or how underlying ideologies associated to such behaviours come about, they were still able to identify the inappropriateness of the behaviour and the feelings of frustration that such acts of tokenism caused. Being able to articulate why a colonising or tokenistic behaviour is detrimental takes a concerted level of understanding about the impacts of colonisation. Having the ability to un-pack why a behaviour is problematic would help Pākehā learners of te reo Māori to support other's within their social/cultural ingroups to develop their understandings of bicultural issues in Aotearoa.

While some participants discussed how they had very few relationships with Māori prior to learning te reo Māori, they also noted how having an improved level of knowledge about the language (and decreased level of cultural ignorance) improved intercultural relationships.

> *Jacob: Having started to learn te reo Māori, I've demonstrated that I do care, and therefore people are more willing to engage with me, or have me engage with them. [Intermediate]*

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[6] The participant had previously described that her father held negative views toward Māori.

Theme 3: Real world incentives as language motivation

Two of the most common instrumental motivations included completing the language paper for points toward their degree and, secondly, to attain a job where an employer valued the language.

> *Sally: It started off from the fact that I needed 20 B.A. points at any level… um just for my course requirements. [Beginner]*

Although some students may come to learn te reo Māori because of instrumental motivations, it is possible that through being exposed to the language provides learners with an environment where the language is seen as valuable.

> *Erica: I think that learning te reo Māori will hopefully help me get a job… um… maybe help with someone else who hasn't learned it but I also think it's quite important for New Zealand culture that we're integrating Māori into our schools. [Beginner]*

It is not clear whether one motivation supersedes another in the excerpt above, for instance, is future employment the major motivation or the integration of te reo Māori in schools? The motivations appear to be somewhat overlapping, and mutually beneficial for language revitalisation purposes. Some participants who were interested in becoming teachers described having multiple motivations, which included both an instrumental motivation (attaining a job), but also a desire to promote social change.

> *Jacob: Personally, I've wanted to go into politics for a long time [...]. In doing that, is to be able to speak to everyone in the country [...]. One of the things I really want to do just in life as well, is to make sure that I have a pretty good working knowledge of both te reo Māori and New Zealand sign language just so that I've got that capacity, seeing as [there are] three official languages. [Intermediate]*

Although there was only one participant who had a clear goal of entering into politics, there were a number of participants who had political motivations for learning te reo Māori. There appear to be dual motivations in the excerpt above, where on the one hand there is an instrumental motivation, and on the other an integrative motivation to develop relationships with the speaker populations of those languages.

While most participants in this study had not begun working in their desired field, the participant below described how learning te reo Māori provided him with the necessary skills to adequately do his job.

> *Boomer: I began this new job about 7 months ago, and I had no previous particular interest in the Māori world or in Māori. But then you go up as very, very focused on the Māori world. It didn't take me very long to decide after sitting on the marae at hui, meeting Māori people every day that this is an opportunity to take my learning further, and ah that would make me much more comfortable moving in the Māori world and give me a sense of achievement. So that's why I'm learning. [Beginner]*

Again, while instrumental motivations are present in this excerpt above, they are followed by an integrative motivation. The participant understands that by investing in te reo Māori, their skills in te reo Māori will allow them to move more fluidly in Māori cultural contexts at work.

For CSL2 learners who did not have a particular vocation to enter into (such as teaching), it was unclear how learning te reo Māori might remain relevant once they were no longer involved in study. Having instrumental incentives where the language was required to a greater level of fluency rather than merely achieving basic language ability was thought to be a motivational factor for some CSL2 learners.

> *Michael: Not having real world incentives is something I'm afraid of… I think especially with like the… the revival or the revitalisation… ah… there's gonna be a need to emphasise real-world incentives in order to motivate speakers once they [...] leave university, because um we will just lack forums, especially Pākehā learners. I mean I know adults who did majors in Māori and they like can't speak it now and it's only because they just haven't needed it you know? [...] How great would it be if I got a job [...] it required… a Māori speaker or something? [Advanced]*

The limited number of spaces where te reo Māori is spoken to a high degree of fluency was highlighted by more advanced level learners as a barrier to sustaining language fluency. This point highlights the need for employment where the language is used, particularly in the case of endangered languages.

Theme 4: The societal context: positive impact of knowing Pākehā speakers of te reo

Results indicated that some Pākehā CSL2 learners were motivated by observing other CSL2 learners who were either studying te reo Māori, or had some degree of fluency in the language. What is highlighted across each of the excerpts is that being a Pākehā speaker or learner of te reo Māori is outside of societal norms.

> *Boomer: I'm working with a lawyer at the moment who is Pākehā who is, to my way of understanding, fluent in te reo Māori. I was deeply impressed when I discovered that and saw him at work, ah, and I thought if he can do it, perhaps I can do it. [Beginner]*

Having co-workers and peers who spoke te reo Māori appeared to support Pākehā to want to learn te reo Māori.

Reflecting retrospectively, one participant discussed having a Pākehā teacher during high school, which was a motivational factor. Having someone who is in a position, such as a teacher, of power demonstrate the value of te reo Māori is likely to be positive for student cohorts.

> *Matthew: My teacher [...] she was Pākehā and she motivated me, a full Pākehā, to learn te reo. [...] She was like "Aw, you're not the only one… you know? Been there done that." [Advanced]*

Positive influences, such as peers, who are encouraging of te reo Māori acquisition during high school were influential for some participants. From a developmental perspective, adolescent identities are going through dynamic challenges during the high-school period (Phinney, 1990). If intercultural relationships and the desire to invest in the indigenous language are formed by Pākehā at this developmental stage, it might be positive for future investment the individual makes in their adult life to attain the target language.

> *Florence: There's one friend who is also Pākehā who I met in high school who had never learned te reo before but was so passionate about it and was so keen to and she did it all through high school [...] and I think that especially during that high school stage she really kind of was like, just reminded like reinvigorated that kind of effort and strive to do that. [Advanced]*

The point made by Florence is that not only was it important to have Pākehā peers who were learning te reo Māori, but also the fact that her peer was enthusiastic about learning to a high level.

As well as being motivated by peers, participants who had travelled abroad noted that there was commonly an expectation that Pākehā spoke the national languages of New Zealand. The point below highlights how learning te reo Māori may have had a domino effect for other members within the Pākehā community who were open to learning te reo Māori.

> *Kate: One of my friends has just enrolled in uni for next year and she's actually going to be taking… I've inspired her… cause she's the one that went overseas and she also found that she couldn't speak Māori and everyone was like "Aw my gosh." Um… so I think she really wants to, so that's cool. [Beginner]*

Discussion

The results of this study indicate that some of the reasons why this small group of Pākehā are motivated to learn te reo Māori is due to an identity connection that they feel toward Māori. Furthermore, members of this group of participants highlighted that they preferred to occupy identity positions that were rejecting of cultural ignorance. There social positions amongst their social groups were in some instances marginal positions, for instance, there was an acknowledgement that some individuals came from families who actively voiced racist views about Māori. Some participants felt the need to take a stand to contradict some of the racist, discriminatory views held towards Māori by members of the mainstream, including views held by significant others. This study demonstrated that there is a small group of Pākehā who are motivated to create an identity position that is founded on a relationship with Māori as indicated by other research (Jellie, 2001; Kirkwood et al., 2005; Mitcalfe, 2008, Nelson, 2018).

These findings indicate that there is a group of Pākehā who feel that their relationship with Māori contributes to their concept of 'authentic' citizenship. Authenticity beliefs are prominent issues that Māori have to deal with (Houkamau & Sibley, 2010; McIntosh, 2005). What the current study exposed is that there may be a set of authenticity beliefs and corresponding criteria that surround what it means to be a Pākehā versus a New Zealand European. It would be useful to explore these issues through future research.

An additional motivation of some CSL2 learners to learn te reo Māori was to oppose the position explicated in the 'Standard Story' (Nairn & McCreanor, 1991). It is likely that there is a proportion of the Pākehā population who are aware of negative discourses, yet refuse to perpetuate the framing of Māori in such a way, as demonstrated in research by Fabish (2014). In response to these negative discourses, there is a minority group of CSL2 learners who choose to demonstrate their support for te reo Māori irrespective of the counterproductive racist views of others from within their cultural group.

Of those interviewed within this study, some participants highlighted that they were motivated to learn te reo Māori in order to reduce their own levels of cultural ignorance. These language learning motivations contradict the view that some dominant group members may hold that Māori knowledge and language can be ignored at a societal level (Jackson, 1998). Spivak (1988) refers to this phenomenon as sanctioned ignorance theory, whereby societies can be ignorant about certain types of knowledge in a way that is societally acceptable. It appears that some CSL2 learners reject the notion that it is acceptable to be ignorant about Māori language. By choosing to learn te reo Māori, CSL2 learners are demonstrating to both their own cultural group and to Māori that they see value in investing time into the language learning process. The choice to learn te reo Māori is unlikely to be apolitical or without political consequences.

There were three elements that were exposed in this study relating to Pākehā being motivated by other Pākehā. Firstly, it appears that there is a sense of permission giving that is required to increase Pākehā language learners of te reo Māori. Secondly, the sense of achievability is gained from seeing non-Māori speakers demonstrate Māori language fluency. Finally, social approval by others from within their cultural ingroup appeared to contribute to why having other Pākehā speak te reo Māori was important for Māori language motivations for this group of participants.

It is possible that CSL2 learners attract like-minded individuals to their friendship groups, which may encourage them to further their learning of the target language. While friendship is a factor already considered part of L2 motivation research (Clément, Dörnyei, & Noels, 1994), the importance of friendship among those learning the target L2, who do not identify as heritage language learners with genealogical links to the language, provides a point of possible distinction. Participants in this study were motivated to extend their learning of te reo Māori because they had encountered a Pākehā peer or colleague who had also chosen to learn te reo Māori. If the implications of these results are applied more broadly, it is not enough for Pākehā to encounter Māori speakers of te reo. Instead, Pākehā need to be surrounded by other Pākehā CSL2 learners of te reo Māori in order to increase the critical mass of speakers. From a self-categorisation perspective (Turner, et al., 1987), it is possible that Pākehā who view Māori language as a behaviour belonging to

Māori people are unlikely to see this behaviour as something that is required or permitted by other in-group members.

What is not covered in this study is whether heritage Māori language speakers are generally supportive of Pākehā learning te reo Māori. An increase in Pākehā speakers of te reo Māori appear to be the goals listed in the Maihi Karauna (the Government defined language goals for 2019-2023). The chair of Te Taura Whiri i te reo Māori (The Māori Language Commission) notes that "Consideration of macro-language planning approaches needs to engage wider society and make the language relevant for all citizens by raising its status." Higgins continues by posing the question "For a nation that was founded on the Treaty of Waitangi, what does it mean to continue to promote monlingualism rather than uphold the intentions of the Treaty of Waitangi?" (Higgins, 2016, p. 36). Promoting the normalisation of te reo Māori requires societal acceptance and use of te reo Māori across a range of language speaking domains, including employment spaces. However, whether the wider Māori language speaker population are supportive of an increase in Pākehā speakers of te reo Māori is yet to be researched to any significant degree. Heritage language loss and revitalisation is highly political and interwoven into the historical trauma of colonisation in Aotearoa. Te reo Māori is in a state of revitalisation as a direct result of colonial subjugation (Waitangi Tribunal, 1986; 2011). It is not clear how Māori may feel towards an increase in Pākehā speakers of te reo Māori, while there is a decrease in Māori heritage speakers of te reo Māori.

Te reo Māori is increasingly becoming a language that is transferred through educational providers rather than through intergenerational transmission (Mead, 1997; Tihema, 2018). Māori who want to be speakers of te reo Māori, but who are unfamiliar with educational institutions offering te reo Māori, may experience further marginalisation in addition to that which they already face (McIntosh, 2005). A need for more Māori language speakers (including Pākehā) should increase the number of domains where te reo Māori is used eventually. The transition to increasing the number of Pākehā speakers might be challenging for Māori as a group, when the indigenous language loss is attributed to colonial actions of violence and oppression (Coombes, 2011; Waitangi Tribunal, 2011).

The learning context has an impact on motivation to learn and pursue second language learning. Three levels were highlighted by Gardner and Clément (1990) including: the context of the language, the context of an encounter, and the wider societal and intergroup encounter. Therefore, the language that is used or attempted is thought to be related to experiences in each of the previously mentioned contexts. For Pākehā learners of te reo Māori, findings from previous study indicate that individual learners may experience motivations based on the desire to experience future bicultural encounters across a range of contexts. The challenge for many Pākehā learners is likely to be that they may develop an ideological position of wanting to create relationships with Māori in te reo Māori, but may in fact have very little contact with Māori language speaker communities. Interpersonal meaningful engagement is likely to be beneficial for goals of biculturalism, particularly when Pākehā are able to acknowledge their role in the disestablishment of social structures and systems that continue to marginalise Māori populations, and subsequently, the language of those being subjugated.

Real world, instrumental motivations were present in the findings of this study. Positioning the research in a university environment makes it highly likely that a possible motivation for learning an L2 will be for degree completion requirements, which corresponds with other L2 motivation research (Dörnyei & Schmidt, 2001). This study highlights the need for instrumental incentives for learners of endangered languages, particularly in cases where there is no heritage connection to the language. If a language is not used for employment, the economic value attached to the language is lowered. Government investments into businesses that actively encourage the use of te reo Māori are likely to contribute to the prosperity of te reo Māori over the long-term, particularly when language use is used with a level of complexity.

A limitation of this study is that the participants were all students studying at a Pākehā-dominant institution (university), as opposed to a Māori community language learning setting. While some Pākehā may enrol in a Māori language class, and be out of their comfort zone, any Pākehā student entering into a university course is safe in the knowledge that the classes follow the regulations of a Western university system. Future studies that wish to explore aspects associated with acculturation experiences of CSL2 learners in indigenous contexts could investigate the experiences and motivations of Pākehā or other Colonial Settler groups who are not based in a Western university. This study was a small-scale qualitative study that aimed to understand some of the experiences of a few Pākehā who had begun learning te reo Māori. Concrete conclusions cannot be generalised from such a small sample, however, the results do offer insights into some learner motivations from those who are learning te reo within a tertiary institution. Furthermore, this study focused on Pākehā learners of te reo Māori, without the voice of their Māori student counterparts. The ways in which the two cultural groups interact in learning spaces would be useful to explore in future research. Finally, the ways in which Pākehā learners of te reo Māori learn about the cultural and socio-political aspects related to language use were not highlighted in this research given the limited scope. A broader understanding about how such issues about being learned within educational contexts would be helpful to note.

Summary

This small-scale project aims to highlight some of the reasons why Pākehā in today's context might be invested in learning the indigenous language of Aotearoa New Zealand. At a fundamental level, there are a number of possible reasons that contribute to second language acquisition, and the relationships the Colonial Settler groups have with the indigenous population is one of those reasons. The processes involved with the acquisition of te reo Māori may be used as a means of healing some intercultural relationships that have resulted through colonisation. Through understanding some of the motivations that both Pākehā and Māori have for learning te reo Māori and reaching high levels of language competence, there may be an opportunity to shift our current state of language endangerment to language safety.

As professed by King Tāwhiao, "Kotahi te kahao o te ngira e kuhuna ai te miro mā, te miro pango, te miro pango"[7]. This whakatauākī (proverbial saying) is used to indicate that there are multiple strands that are needed in order to achieve a common goal. If te reo Māori is to continue to be used as a functional language, working together has the potential to create positive outcomes for language normalisation and subsequently, language revitalisation.

What also needs to be acknowledged is the high value that te reo Māori holds for the identity of Māori (Te Huia, 2017). When Māori are in situations where Pākehā are more fluent than themselves, this is likely to cause emotional discomfort and distress for some Māori who may feel whakamā or even a sense of indignity due to the incongruence of a non-heritage dominant cultural group member demonstrating a behaviour that they themselves may have been denied due to colonial processes. Conversations need to be held between Māori and Pākehā about how to engage with te reo Māori, particularly given our shared histories. If there is an increase in Pākehā learners of te reo Māori into the future, educational programmes need to encourage the active acknowledgement about how te reo Māori has been impacted by colonisation and how Pākehā might participate in the process of language revitalisation with care and critical awareness.

References

Albury, N. J. (2015). Collective (white) memories of Māori language loss (or not). *Language Awareness, 24*(4), 303-315.

Ahu, T. (2012). Te Reo Maori as a Language of New Zealand Law: The Attainment of Civic Status.

Bishop, R., & Glynn, T. (1999). Researching in Māori contexts: An interpretation of participatory consciousness. *Journal of Intercultural Studies, 20*(2), 167-182.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Brown, M. W. (2011). *Decolonising Pākehā ways of being: Revealing the third space Pākehā experience.* (Doctor of Philosophy), The University of Waikato.

Clément, R., Dörnyei, Z., & Noels, K. A. (1994). Motivation, self-confidence, and group cohesion in the foreign language classroom. *Language Learning, 44*(3), 417-448.

Coombes, A. E. (2011). Memory and history in settler colonialism In A. E. Coombes (Ed.), *Rethinking settler colonialism: History and memory in Australia, Canada, Aotearoa New Zealand and South Africa* (pp. 1-12). UK: Machester University Press.

Dörnyei, Z., & Schmidt, R. (2001). *Motivation and second language acquisition* (Vol. 23): Natl Foreign Lg Resource Ctr.

Fabish, R. (2014). *Black Rainbow: Stories of Māori and Pākehā working across difference.* (Doctor of Philosophy), Victoria University of Wellington.

Fishman, J. A., & García, O. (2010). *Handbook of language & ethnic identity* (Vol. 1): Oxford University Press, USA.

Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*: Arnold.

Gardner, R. C. (2007). Motivation and second language acquisition. Publication details?

Gardner, R. C., & Clément, R. (1990). *Social psychological perspectives on second language acquisition*: John Wiley & Sons.

Giles, H., & Johnson, P. (1987). Ethnolinguistic identity theory: a social psychological approach to language maintenance. *International Journal of the Sociology of Language, 68*, 69-99.

Hepi, M. (2008). *Pakeha identity and Maori language and culture: Bicultural identity and language in New Zealand*: Saarbrucken: VDM Verlag Dr. Muller.

Higgins, R. (2016). Ki wīwī, ki wāwā: Normalisating the Māori language. In P. Adds, B. Bönisch-Brednich, R. Hill, & G. Whimp (Eds.), *Reconciliation, representation and indigeneity: 'Biculturalism' in Aotearoa New Zealand*. Heidelberg: Universitatsverlag Winter.

Higgins, R., Rewi, P., & Olsen-Reeder, V. (2014). *The Value of the Maori Language: Te Hua o te Reo Māori* (Vol. 2): Huia Publishers.

Houkamau, C. A., & Sibley, C. (2010). The multi-dimensional model of Māori identity and cultural engagement. *New Zealand Journal of Psychology, 39*(1), 8-28.

Hurihanganui, T. A. (2018). Hundreds on wait-lists for beginner reo classes.
Retrieved from https://www.radionz.co.nz/news/te-manu-korihi/351351/hundreds-on-wait-lists-for-beginner-reo-classes

Huygens, I. (2011). Developing a Decolonisation Practice for Settler Colonisers: A Case Study from Aotearoa New Zealand. *Settler Colonial Studies, 1*(2), 30.

Jackson, M. (1998). *Research and the colonisation of Māori knowledge.* Paper presented at the Te Oru Rangahau: Māori Research and Development Conference, Massey University, Palmerston North

Jackson, M. (2019). The connection between white supremacy and colonisation. Retrieved from https://e-tangata.co.nz/comment-and-analysis/the-connection-between-white-supremacy/

Jellie, M. (2001). *The formation of Pākehā identity in relation to te reo Māori and te ao Māori.* (Master of Arts), University of Canterbury, Christchurch.

Jones, A. (2001). Cross-cultural pedagogy and the passion for ignorance. *Feminism & Psychology, 11*(3), 279-292.

Kirkwood, S., Liu, J. H., & Weatherall, A. (2005). Challenging the standard story of indigenous rights in Aotearoa/New Zealand. *Journal of community & applied social psychology, 15*(6), 493-505.

Masgoret, A., & Gardner, R. (2003). Attitudes, motivation, and second language learning: A meta-analysis of studies

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[7] This proverbial saying translates into English as "Through the eye of the needle pass the white thread, the black thread, and the red thread".

conducted by gardner and associates. *Language Learning Journal, 53*, 167-210.

McCarty, T. L. (2003). Revitalising Indigenous languages in homogenising times. *Comparative education, 39*(2), 147-163.

McIntosh, T. (2005). Māori identities: Fixed, fluid, forced. In J. H. Liu, T. McCreanor, T. McIntosh, & T. Teaiwa (Eds.), *New Zealand Identities: Departures and Destinations*. Wellington: Victoria University Press.

Mead, H. M. (1997). *Landmarks, bridges and visions: Aspects of Maori culture: Essays*. Wellington: Victoria University Press.

Mitcalfe, M. A. (2008). *Understandings of being Pākehā: Exploring the perspectives of six Pākehā who have studied in Māori cultural learning contexts.*(Masters of Management), Massey University.

Moewaka Barnes, A., Borrell, B., Taiapa, K., Rankine, J., Nairn, R., & McCreanor, T. (2012). Anti-Māori themes in New Zealand journalism – toward alternative practice. *Pacific Journalism Review, 18*(1), 195-215.

Moseley, C. (2010). Atlas of the World's Languages in Danger from UNESCO Publishing http://www.unesco.org/languages-atlas/

Nairn, R., & McCreanor, T. (1991). Race talk and common sense: Patterns in Pākehā discourse on Māori/Pākehā relations in New Zealand.*Journal of Language and Social Psychology, 10*(4), 245-262.

Nelson, M. (2018). *Reo Māori, Pākehā voices: The bilingual land our hearts know is possible*. Retrieved from Wellington: https://www.tetaurawhiri.govt.nz/assets/Uploads/a77ad44bb7/Reo-Maori-Pakeha-Voices.pdf

Ngata, T (2019). *Kia Mau: Resisting Colonial Fictions.* Kia Mau Campaign.

Norton, B. (2000). *Identity and Language Learning: Gender, Ethnicity and Educational Change*. Harlow: Longman.

Norton, B. (2019). Motivation, Identity and Investment: A Journey with Robert Gardner. *Contemporary Language Motivation Theory: 60 Years Since Gardner and Lambert (1959)*, 153.

O'Malley, V. (2016). *The Great War for New Zealand: Waikato 1800–2000*. Wellington: Bridget Williams Books.

Orange, C. (2015). *The treaty of Waitangi*. Wellington: Bridget Williams Books.

Phinney, J. (1990). Ethnic identity in adolscents and adults: a review of research. *Psycholocical Bulletin, 108*, 499-514.

Rātima, M. T., & May, S. (2011). A review of indigenous second language acquisition: Factors leading to proficiency in te reo Māori (the Māori language). *MAI Review, 1*, 1-26.

Rātima, M. T., & Papesch, T. R. (2013). Te Rita Papesch: case study of an exemplary learner of Māori as an additional language. *International Journal of Bilingual Education and Bilingualism, in press*. doi:http://dx.doi.org/10.1080/13670050.2013.806431

Reedy, T., Dewes, C., Maxwell, T. K., O'Regan, H., Papa, P., Shortland, R., & Waho, T. (2011). *Te Reo Mauriora: Te Arotakenga o te rārangi reo Māori me te rautaki reo Māori – Review of the Māori language sector and the Māori langauge strategy*. Wellington: Te Puni Kōkiri.

Rubenfeld, S., & Clément, R. (2019). Identity, Adaptation and Social Harmony: A Legacy of the Socio-Educational Model. *Contemporary Language Motivation Theory: 60 Years Since Gardner and Lambert (1959)*, 109.

Simon, J. (1998). Te Reo me te tuhinga i ngā Kura Māori: Language and literacy in the Native Schools. In J. Simon (Ed.), *The native school system, 1867-1969*. Auckland, Auckland University Press.

Simons, G. F., & Lewis, M. P. (2013). *The world's language in crisis: A 20 year update*. Paper presented at the 26th Linguistics Symposium: Language Death, Endangerment, Documentation, and Revitalization, University of Wisconsin, Milwaukee.

Sixsmith, J., & Daniels, J. (2011). Action Research. *Qualitative methods in psychology: A research guide. 2nd edition.* Maidenhead: Open University Press/McGraw Hill.

Smith, L. T. (1999). *Decolonizing Methodologies*. London: Zed Books Ltd.

Spivak, G. (1988). *Can the Subaltern Speak?* Chicago: University of Illinois.

Spolsky, B. (2003). Reassessing Māori regeneration. *Language in society, 32*(4), 553-578.

Statistics New Zealand. (2013). *Māori language speakers*. Wellington: NZ Government Retrieved from http://archive.stats.govt.nz/browse_for_stats/snapshots-of-nz/nz-social-indicators/Home/Culture%20and%20identity/maori-lang-speakers.aspx#info

Te Huia, A. (2017). Exploring the role of identity in Māori heritage language learner motivations. *Journal of Language, Identity & Education, 0*(0), 1-14.

Te Puni Kōkiri. (2019). *Maihi Karauna: The Crown's Strategy for Māori Language Revitalisation 2019-2023*. Wellington: Te Puni Kōkiri Retrieved from https://www.tpk.govt.nz/docs/tpk-maihi-karauna-en-2018-v2.pdf

Tihema, N. L. (2018). *The teaching, learning and testing of te reo Māori in tertiary institutions in Aotearoa/New Zealand.* The University of Waikato.

Turner, J., Hogg, M., Oakes, P., Reicher, S., & Wetherell, M. (1987). *Rediscovering the social group: A self-categorization theory.*Oxford: Blackwell.

Ushioda, E., & Dörnyei, Z. (2009). Motivation, language identities and the L2 self: A theoretical overview. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language and identity and the L2 self* (pp. 1-8). Bristol: Multilingual Matters.

Waitangi Tribunal. (1986). *Report of the Waitangi Tribunal on the Te Reo Māori claim (WAI 11)*. Wellington: The New Zealand Government.

Waitangi Tribunal. (2011). *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity*. Wellington: The Government of New Zealand.

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A Systematic Review of Bipolar Disorder in Indigenous Peoples

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Indigenous peoples experience well documented health inequities compared to majority ethnic groups. More research into serious conditions like Bipolar Disorder (BD) is needed. A systematic review of published original research involving Indigenous peoples with BD was completed to identify areas of consistency, contradiction and gaps in available literature. Searches identified 396 studies, 25 met inclusion criteria. Six countries including New Zealand were represented. Studies commonly reported small numbers of Indigenous participants, for whom results were often incomplete. The design, population, and methods were also diverse, limiting the review synthesis. The only consistent finding in studies of similar methods suggested BD prevalence may be greater in Indigenous communities. Future research must be designed to inform knowledge about Indigenous peoples with BD, to identify their needs and experiences, and address any factors maintaining health inequities.

Keywords: *Bipolar Disorder, Systematic Review, Indigenous Populations*

Introduction

Recent publications identify pervasive inequities and barriers affecting the health of Indigenous peoples when compared to majority ethnic groups (Anderson et al., 2016; UN Permanent Forum on Indigenous Issues, 2015). These authors also note the limited availability of quality health data within these populations, with calls for international health authorities to address knowledge deficits in order to inform the development of efficacious health policy and services for Indigenous communities. Mental health is particularly under researched in Indigenous populations, with the latest world mental health action plan setting targets to address this imbalance (Anderson et al., 2016; World Health Organization, 2013). These health inequities have global implications as Indigenous peoples, residing in approximately 90 countries throughout the world, tend to experience the greatest levels of socioeconomic disadvantage independent of the wealth of their country of origin (Anderson et al., 2016; Gracey & King, 2009a; Shepherd, Li, & Zubrick, 2012).

Although the privileged physical health status of majority ethnic groups has been increasingly recognised, the need to understand and address Indigenous mental health remains an area of priority (Anderson et al., 2016; World Health Organization, 2013). Despite the differing histories, cultures, languages, countries of origin and traditions of the world's Indigenous peoples, their shared experience of marginalisation through the process of colonisation has been associated with markedly similar mental health outcomes (Durie, 2011; Harris et al., 2012; Hernandez, Ruano, Marchal, San Sebastian, & Flores, 2017; Pihama et al., 2014; Reid, Cormack, & Paine, 2019; UN Permanent Forum on Indigenous Issues, 2015). While inconsistent data collection may mask the extent of inequities, international research consistently reveals disproportionately high rates of suicide and greater levels of exposure to psychosocial stressors and risk factors that would adversely affect the mental health of Indigenous peoples (Baxter, 2008; Black, Kisely, Alichniewicz, & Toombs, 2017; Hernandez et al., 2017; Kirmayer & Pedersen, 2014; UN Permanent Forum on Indigenous Issues, 2015). These differences may be influenced by communities socialised within colonial and racist ideologies that influence systemic and clinician bias, where 'deficit' is seen to arise within the Indigenous person without critical appraisal of the ongoing impacts of colonisation on mental health outcomes (Harris et al., 2012; Pihama et al., 2014; Reid et al., 2019).

Bipolar disorders are heterogeneous, reflect patterns of manic, hypomanic and depressive episodes, and are typically recurrent (American Psychiatric Association, 2013). International research shows that BD tends to follow a chronic course, having a significant impact on a person's functioning across contexts and over time, with the World Health Organization (WHO) describing BD as a condition that contributes to a high health burden globally (Angst, 2004; Hirschfeld, Lewis, & Vornik, 2003; Judd et al., 2003; Judd et al., 2002; Merikangas et al., 2011; Michalak, Yatham, Maxwell, Hale, & Lam, 2007; Ministry of Health, 2014; Morselli, Elgie, & Cesana, 2004; Robson & Harris, 2007; Rosa et al., 2009; Sanchez-Moreno et al., 2009; Simon, 2003; Yatham et al., 2004). Bipolar disorder prevalence rates have been measured in world mental health surveys, the findings of which reveal similarities between countries of differing income levels, indicating that BD is not a condition limited to countries of greater affluence (Merikangas et al., 2011). Evidence suggests that majority ethnic groups experience lower rates of BD than some Indigenous populations; however, more research is needed in this area (Baxter, 2008; Baxter et al., 2006; Black et al., 2017).

Indigenous peoples have often been subject to problem focused research where knowledge is produced and positioned from a deficit perspective (Drawson, Toombs, & Mushquash, 2017). This study was informed by Indigenous critique of mainstream research and review methods, and recognised the need to avoid maintaining a deficit perspective by considering the structures and systems in which health inequities arise (McDonald et al., 2010; Morton Ninomiya et al., 2017). The aim of this systematic review was to identify all published original research involving Indigenous peoples with BD to determine areas of consistency, contradiction and knowledge gaps. To our knowledge, there have been no prior systematic reviews with this focus.

METHOD

Preferred Reporting Items for Systematic reviews and Meta-Analysis (PRISMA) guidelines were followed and adaptations made to prepare a review that would contribute to the health research needs of Indigenous peoples (McDonald et al., 2010; Moher, Liberati, Tetzlaff, & Altman, 2009; Morton Ninomiya et al., 2017). A study protocol was registered with PROSPERO (number CRD42016053514). The protocol was further refined after presentations were made at two international BD conferences (Haitana, 2017; Haitana, Pitama, Crowe, & Lacey, 2018), and to representatives providing mental health services to Indigenous peoples with BD across three New Zealand sites.

Eligibility Criteria

Studies were included if they presented original research in peer-reviewed journals, with at least two participants, where analysis focused on BD, and results were reported separately for an Indigenous sample. Unpublished data, single case reports, reviews, and conference presentations were excluded. All publication dates and research methods were included enabling the full scope of research of BD in Indigenous peoples to be investigated. One study written in French that otherwise met inclusion criteria was excluded.

Information Sources

Five databases were utilised: Embase, MEDLINE, PsycINFO, Scopus, and Web of Science. A final search was completed on 24 August 2018. Due to the relatively small number of search results returned from the databases, hand searches were also completed of reference lists, review articles, Indigenous health journals and research collections to assist with identifying additional studies for inclusion.

Search

Keywords were tailored and trialled for each database, results from searches were reviewed and the final strategy was refined so as to produce the largest number of records. For each database, variants of terms related to Indigenous Peoples and Bipolar Disorder were combined as follows: (Indigenous People* OR Native People* OR Maori* OR Pacific Islander* OR Polynesian* OR Aborigin* OR Australia* Aborigin* OR Torres Strait Islander* OR Native America* OR America* Indian* OR First Nation* OR Inuit* OR Native Alaska* OR Alaska* Native* OR Native Hawaii* OR Hawaii* Native* OR Autochthonous) AND (Manic Depress* OR Manic Depress* Psychos* OR Bipolar Disorder OR Bipolar Affective Disorder OR Bipolar Mood Disorder OR Bipolar).

Study Selection

The first author completed the initial process of screening article titles and abstracts, and categorised these into three groups (likely include, likely exclude, and potentially include). These categories were then collaboratively discussed and reviewed with all authors to further refine the process of applying eligibility criteria. Full text records that met inclusion criteria were then reviewed by the first author to assess eligibility. In the event of uncertainty, studies were reviewed by all authors to reach consensus.

Data Collection Process

Full text articles were distributed to all authors. Data was extracted into a spreadsheet by the first author for ease of analysis, and the spreadsheet then distributed to all authors for further review and refinement.

Data Items

From each study, relevant research findings, research methods and aims, sample population, number of Indigenous participants and number with BD diagnoses, their age range, method of diagnosis, method of identifying ethnicity, and the country and Indigenous population from which study participants were drawn were summarised in written form.

Risk of Bias in Individual Studies

Based on the designs of included studies, two appraisal tools were selected to assess quality within cross-sectional (Downes, Brennan, Williams, & Dean, 2016) and qualitative research methods (The Joanna Briggs Institute, 2017). A quality appraisal spreadsheet was used by two Māori authors (TH, CL) who independently reviewed and rated each paper according to the Appraisal tool for Cross-Sectional Studies (AXIS) (Downes et al., 2016), and the Joanna Briggs Institute (JBI) Checklist for Qualitative Research criteria (The Joanna Briggs Institute, 2017). In keeping with Indigenous critique of systematic review methods, each appraisal tool and quality question was amended to fit the Indigenous focus by considering the extent to which the study design and results contributed to advances in knowledge about Indigenous peoples with BD (McDonald et al., 2010; Morton Ninomiya et al., 2017). An overall quality estimate was given as low, medium or high based on the number of dimensions present, and the utility of the research to Indigenous populations. This method resulted in a high level of consistency between reviewers, who provided equivalent blind ratings in 24 out of 25 studies. Following a review of scoring and overall quality estimates, a quality score consensus was reached for the remaining study.

Synthesis of Results

Data was extracted according to study design, then grouped by study population. Results were considered in order of quality before descriptive analysis was undertaken for each study method and sample population.

RESULTS

Study Selection

Of the 396 studies identified, the abstracts of 214 potentially relevant papers were reviewed, and full-text

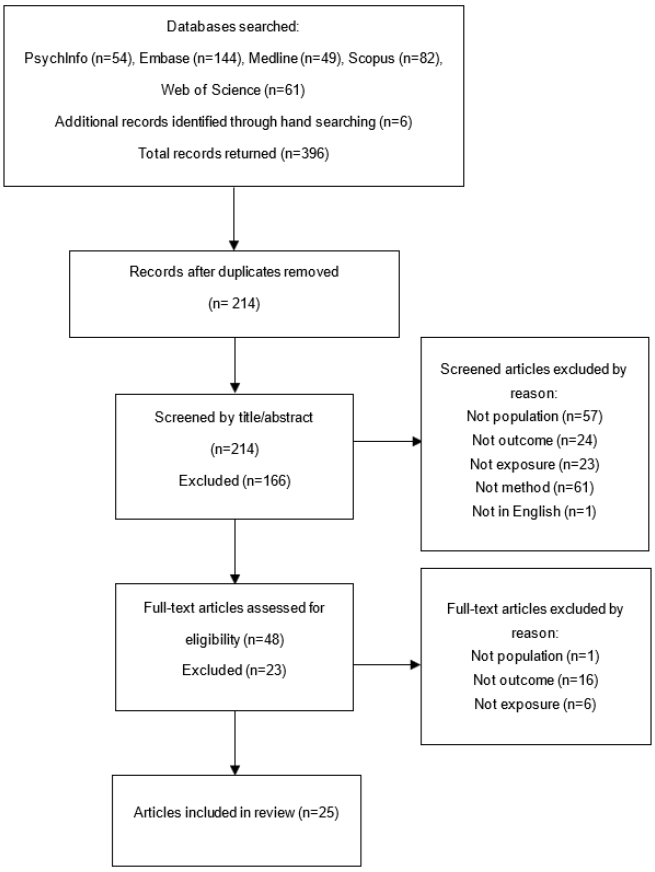

Figure 1: PRISMA flow diagram

records were obtained for 48 of these. A total of 25 studies that met eligibility criteria (see Figure 1) were retained (Almeida & Fenner, 2002; Aoun & Gregory, 1998; Barreto & Segal, 2005; Baxter et al., 2006; Beaglehole, 1939; Bih et al., 2008; Blanco et al., 2017; Butler, Allnutt, Kariminia, & Cain, 2007; Cawte, 1964; Coleman et al., 2016; Dharmawardene & Menkes, 2015; Grant et al., 2005; Harris, Waitoki, & Nikora, 2015; Kuipers, Appleton, & Pridmore, 2012; Mellsop, Dutu, & El-Badri, 2007; Melroy-Greif, Gizer, Wilhelmsen, & Ehlers, 2017; Mitchell & Romans, 2003; Muñoz, Marconi, Horwitz, & Naveillan, 1966; Nasir et al., 2018; Pickner et al., 2016; Rin & Lin, 1962; Sampath, 1974; Schluter, Lacey, Porter, & Jamieson, 2017; Sentell et al., 2013; Tapsell, Hallett, & Mellsop, 2018). Studies were excluded when there were no Indigenous participants (not population), when the focus of the study was unrelated to BD (not exposure), or when results did not present individual analysis of the Indigenous sample (not outcome).

Study Characteristics

The majority of studies (n=23) were quantitative with a cross-sectional research design (Almeida & Fenner, 2002; Aoun & Gregory, 1998; Barreto & Segal, 2005; Baxter et al., 2006; Beaglehole, 1939; Bih et al., 2008; Blanco et al., 2017; Butler et al., 2007; Cawte, 1964; Coleman et al., 2016; Dharmawardene & Menkes, 2015; Grant et al., 2005; Mellsop et al., 2007; Melroy-Greif et al., 2017; Mitchell & Romans, 2003; Muñoz et al., 1966; Nasir et al., 2018; Pickner et al., 2016; Rin & Lin, 1962; Sampath, 1974; Schluter et al., 2017; Sentell et al., 2013; Tapsell et al., 2018). Two used qualitative research methods (Harris et al., 2015; Kuipers et al., 2012). The characteristics of included studies have been outlined in Table 1. Indigenous peoples from six countries were included in the review. Although some studies included participants from more than one Indigenous population, two collapsed these results into an ‘other’ ethnic category, preventing extraction of the additional Indigenous data (Barreto & Segal, 2005; Coleman et al., 2016). Key results are summarised in Table 2. The total number of Indigenous participants with BD included in each study sample was not always reported, and in two studies it was not possible to determine even an estimate of Indigenous sample size from the published material (Bih et al., 2008; Mellsop et al., 2007). The number of Indigenous participants in the remaining studies with an identified diagnosis of BD ranged from 0 to 430 people. Two studies with no cases of Indigenous patients formally diagnosed with BD were included, as they presented results related to the absence of BD diagnoses in a sample of Indigenous patients with mental health difficulties (Kuipers et al., 2012; Muñoz et al., 1966).

While most studies were published between 2002 and 2018 (Almeida & Fenner, 2002; Barreto & Segal, 2005; Baxter et al., 2006; Bih et al., 2008; Blanco et al., 2017; Butler et al., 2007; Coleman et al., 2016; Dharmawardene & Menkes, 2015; Grant et al., 2005; Harris et al., 2015; Kuipers et al., 2012; Mellsop et al., 2007; Melroy-Greif et al., 2017; Mitchell & Romans, 2003; Nasir et al., 2018; Pickner et al., 2016; Schluter et al., 2017; Sentell et al., 2013; Tapsell et al., 2018), there were also four anthropological studies published between 1939 and 1966 (Beaglehole, 1939; Cawte, 1964; Muñoz et al., 1966; Rin & Lin, 1962).

Participants were accessed from various community health surveys (Baxter et al., 2006; Blanco et al., 2017; Cawte, 1964; Grant et al., 2005; Melroy-Greif et al., 2017; Nasir et al., 2018; Rin & Lin, 1962; Sampath, 1974), clinical (Almeida & Fenner, 2002; Aoun & Gregory, 1998; Barreto & Segal, 2005; Beaglehole, 1939; Bih et al., 2008; Coleman et al., 2016; Dharmawardene & Menkes, 2015; Harris et al., 2015; Mellsop et al., 2007; Mitchell & Romans, 2003; Muñoz et al., 1966; Pickner et al., 2016; Schluter et al., 2017; Sentell et al., 2013; Tapsell et al., 2018) and prison settings (Butler et al., 2007), involved data taken from coronial records (Kuipers et al., 2012), and commentary related to paediatric (Pickner et al., 2016), geriatric (Almeida & Fenner, 2002; Schluter et al., 2017) and genetic samples (Melroy-Greif et al., 2017). The method by which BD diagnoses were made varied, but most were obtained from existing clinical records (Almeida & Fenner, 2002; Aoun & Gregory, 1998; Barreto & Segal, 2005; Beaglehole, 1939; Bih et al., 2008; Coleman et al., 2016; Dharmawardene & Menkes, 2015; Muñoz et al., 1966; Pickner et al., 2016; Schluter et al., 2017; Sentell et al., 2013; Tapsell et al., 2018), or following clinical or research based diagnostic interviews (Baxter et al., 2006; Blanco et al., 2017; Butler et al., 2007; Dharmawardene & Menkes, 2015; Grant et al.,

Table 2. Key descriptive information and findings of 25 reviewed studies

Author	N total n Indig *n Indig BD*	Participant characteristics	Diagnostic method	Research aim	Key findings	Quality
Representative community studies						
Baxter et al (2006)	N:12,992 n:2,595 n:(119*)	Sample: Representative community Age: 16-65+ Population: New Zealand Māori	Research interview (CIDI)	To compare 12 month prevalence rates & treatment contact by ethnicity.	• Indigenous participants had highest 12 month prevalence of BD compared to other ethnic groups (4.6%). • This ethnic difference remained significant after adjustment for age, sex, education and income level (3.4%, p<0.0006, as opposed to 1.9% in the comparison ethnic groups. • Unable to report all results as they were not presented for Indigenous sample with BD.	High
Grant et al (2005)	N:43,093 n:NS n:(87*)	Sample: Representative community Age: 18+ Population: American Indian, United States	Research interview (AUDADIS-IV)	To present nationally representative data on 12 month and lifetime prevalence, correlates, and comorbidity of BD.	• Indigenous participants had a greater lifetime & 12 month prevalence estimate of BD. • When adjusted for sociodemographic factors these rates were 6.2% and 3.3% respectively, as opposed to 3.3% and 2.0% in comparison ethnic groups. • The lifetime odds of developing BD was also significantly greater in the Indigenous sample (OR 1.5, p<0.05) than comparison ethnic groups. • Unable to report all results as they were not presented for Indigenous sample.	High
Blanco et al (2017)	N:36,309 n:NS n:(42*)	Sample: Representative community Age: 18+ Population: American Indian, United States	Research interview (AUDADIS-5)	To present 12 month and lifetime prevalence, correlates, comorbidity, treatment and disability of DSM-5 BD I disorder.	• Indigenous participants had the greatest 12 month (3.9%) & lifetime (5.6%) prevalence rate of BD compared to the total sample (1.5% and 2.1% respectively). • After adjusting for sociodemographic factors, the odds of developing BD remained greater among Indigenous participants than comparison ethnic groups (AOR 1.9 & 2.1 respectively). • Unable to report all results as they were not presented for Indigenous sample.	Medium
Context specific studies: Using mental health care records						
Tapsell et al (2017)	N:2967 n:546 n:(52)	Sample: Mental health patients Age: 18-65 Population: New Zealand Māori	Clinical records (ICD-9-CM)	To analyse, document & compare the rate of outpatient and inpatient admission, as a proxy for comparative incidence rates by ethnicity. To compare those rates for schizophrenia, BD and Major Depressive Disorder (MDD) by ethnicity.	• For new Indigenous patients (for whom there was no record of previous service contact between 2009-2013) accessing adult inpatient Mental Health Services (MHS) in 2014, 34 were diagnosed with BD. For new Indigenous patients accessing public MHS in 2014, 18 were diagnosed with BD. • The proxy incidence rate calculated by the authors suggested there were no significant ethnic differences between the Indigenous and non-Indigenous sample in terms of the rate of admission to inpatient or public MHS.	High
Coleman et al (2016)	N:7,523,956 n:30,096* n:(430)	Sample: Mental health patients Age: 18+ Population: American Indian, Alaska Natives, United States (Native Hawaiian data subsumed in 'Other' category)	Clinical records (ICD-9)	What racial/ethnic variance exists in the diagnosis and treatment of mental disorders in large not-for-profit health care systems?	• During the 2011 study period, the Indigenous patient sample had the highest rate of BD (1.5%, OR 1.34) compared to majority comparison ethnic group. • Fill rates of psychotropic medications were slightly lower in Indigenous patients with BD, but the difference was not significant (OR 0.80). • Psychotherapy rates for the Indigenous sample with BD were 2.5%, and while the OR was significantly higher that the white comparison group (1.35), this amounted to approximately 11 Indigenous people with BD.	Medium

Table 2. Key descriptive information and findings of 25 reviewed studies (Continued)

Context specific studies: Using mental health care records						
Barreto and Segal (2005)	N:10,262 n:993 n:(113*)	Sample: Mental health patients Age: 18+ Population: American Indian, United States	Clinical records	What differences exist in service use by ethnicity, and are differences related to illness severity?	• BD most prevalent diagnosis in Indigenous patients (11.4%) accessing MHS in California during the study period when compared to Caucasian and other Asian-American ethnic groups. • Unable to report all results as they were not presented for Indigenous sample.	Low
Bih et al (2008)	N:136,045 n:1,942 n:(NS)	Sample: Mental health patients Age: 15+ Population: Taiwanese Indigenous Peoples	Clinical records (ICD-9-CM)	To estimate the treated incidence and prevalence of BD in Taiwan. To discuss factors associated with the treated incidence in BD.	• Ethnicity was associated with the treated incidence of BD in the Taiwan MHS during the study period. • The Indigenous sample had a lower treated incidence of BD in MHS compared to the non-Indigenous sample (Hazard Ratio, 3.12; 95% CI, 1.26-7.75).	Low
Mellsop et al (2007)	N:NS n:NS n:(NS)	Sample: Mental health patients Age: NS Population: New Zealand Māori	NS	To compare clinical profiles of psychiatric patients with BD by ethnicity and consider whether this data informs claims of different ethnic prevalence rates in community research.	• For patients with BD during the study period, it was found that Indigenous patients were given significantly higher clinician ratings during episodes of care than the comparison group for overactivity/disruptiveness, alcohol/drug use, and hallucinations/delusions.	Low
Context specific studies: Using psychiatric inpatient records						
Dharmawardene and Menkes (2015)	N:141 n:59 n:(14)	Sample: Psychiatric inpatients Age: 18-68 Population: New Zealand Māori	Mixed-method (clinical records: DSM-IV, clinical interview, and service liaison)	To elucidate patterns of substance misuse, across diagnoses and demographic variables, in patients with severe mental illness.	• Within the inpatient sample, BD featured as a less frequent diagnosis in Indigenous patients than in the comparison group (14/59 patients versus 37/76 patients). • The diagnosis associated pattern of scores on measures of cannabis and alcohol use found little differences by ethnicity for inpatients with BD.	Medium
Sentell et al (2013)	N:6385 n:1,176 (314*)	Sample: Psychiatric inpatients Age: 18+ Population: Native Hawaiian, United States	Clinical records (ICD9CM)	To compare psychiatric hospitalisation rates, severity of illness, and length of stay by ethnicity and diagnosis.	• During the study period, 314 Indigenous patients with BD were hospitalised (a rate of 3.52 per 10,000). • This rate of hospitalisation was significantly higher (p=0.45) when compared to some ethnic groups in the sample, but lower than the rate for the caucasian sample (a rate of 12.94 per 10,000). This pattern remained when adjusted for demographic factors. • The mean length of hospital stay for Indigenous patients with BD was lowest when compared to all other ethnic groups, including the Caucasian sample (M 6.53 days, SD 6.18).	Medium
Almeida and Fenner (2002)	N:6,182 n:224* n:(224*)	Sample: Psychiatric inpatients Age: NS Population: Indigenous Australian	Clinical records (ICD-9)	Do hospital admission records show differences between early/late onset BD suggestive of a distinct aetiology?	• In Western Australia during the study period, there was an excess of Indigenous people in cases of BD defined as 'early-onset', with first MHS contact prior to the age of 65 years.	Low

Table 2. Key descriptive information and findings of 25 reviewed studies (Continued)

Context specific studies: Using psychiatric inpatient records						
Beaglehole (1939)	N:NS n:230 *n:(NS)*	Sample: Psychiatric inpatients Age: 16+ Population: New Zealand Māori	Clinical records	To compare the insanity rates of two cultural groups over a ten-year period.	• Hospital data during the study period showed a low incidence of psychiatric admission for Indigenous people. • Of the 230 Indigenous patients hospitalised during this period, 52.6% of females, and 27.9% of males were diagnosed with Manic-Depressive Psychosis (MDP). • Trends in the data suggested the incidence of MDP fluctuated over the study period, but rates appeared higher in Indigenous females when compared to Indigenous males and the comparison Caucasian group.	Low
Munoz et al (1966)	N:272 n:136 *n:(0)*	Sample: Psychiatric inpatients Age: NS Population: Mapuche, Chile	Clinical records	To evaluate a cross-cultural definition of psychosis in two culturally different groups. To compare the clinical characteristics of functional psychoses in these groups through review of clinical records.	• During the study period, there were no cases of MDP in those Indigenous patients hospitalised, and six cases in the non-Indigenous group.	Low
Context specific studies: Using general health records						
Schluter et al (2017)	N:71,859 n:3,897 *n:(45)*	Sample: Home-based health care patients Age: 65+ Population: New Zealand Māori	Clinical records	To provide an epidemiological profile of BD in older community residents.	• In the elderly adult general health sample, 1.2% of the Indigenous participants had a BD diagnosis. • Of the 45 Indigenous participants with BD, 36 were women and 9 were men. • When adjusting for sociodemographic factors, the elderly Indigenous sample had a BD prevalence significantly lower than the comparison ethnic group (AOR 0.56).	High
Pickner et al (2016)	N:20,413 n:3974 *n:(15*)*	Sample: Emergency patients Age: 5-18 Population: American Indian, United States	Clinical records (ICD-9 & DSM5)	To examine mental health related ED visits for AI children and identify demographic and clinical factors, types of mental health concerns, and repeat presentations.	• During the study period, 0.2% (versus 0.4% of the comparison ethnic sample) of Indigenous children in the 5-10-year age group, and 3.7% (versus 2.6% of the comparison ethnic sample) in the 11-17-year age group presented to ED with mental health concerns linked to BD.	Low
Context specific studies: Prison setting						
Butler et al (2007)	N:1,470 n:277* *n:(13*)*	Sample: Prison inmates Age: NS Population: Indigenous Australian	Research interview (CIDI)	To compare the mental health of Indigenous and non-Indigenous Australian prisoners.	• In a prison sample, the 1 month and 12 month prevalence rate of a manic episode amongst the Indigenous prisoners in the study (n=226) was 1.8% and 3.1% for males, and 8.5% and 10.2% for females. • Rates did not differ significantly by ethnicity in the prison sample.	Medium

Table 2. Key descriptive information and findings of 25 reviewed studies (Continued)

Studies occurring exclusively with Indigenous participants: Community surveys						
Nasir et al (2018)	N:544 n:544 *n:(13)*	Sample: Community survey Age: 18+ Population: Indigenous Australian	Clinical interview Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I)	To determine the prevalence of mental disorders using SCID-I in a cohort of Indigenous adults, the cultural adaptability of the SCID-I, and rates of comorbidity and concordance with psychiatrists' diagnoses.	• During the study period, the crude prevalence of BD amongst the Indigenous community sample was as follows: 30 day prevalence of 1.7% (9 people); 12 month prevalence of 1.6% (9 people); and lifetime prevalence of 2.4% (13 people). • Unable to report all results as they were not presented separately for Indigenous sample with BD.	High
Cawte (1964)	N:700* n:700 *n:(NS)*	Sample: Community survey Age: NS Population: Indigenous Australian	Multi-method (church records, community informants, and psychiatric interviews)	From a preliminary field study, what rates and types of mental illness are present in Indigenous people, and what overlapping factors influence 'old' and 'new' illnesses in people with 'more' or 'less' exposure to western culture?	• Rates of MDP in the sample were described as extremely rare if not non-existent. • Manic illness was also considered to be rare.	Low
Rin and Lin (1962)	N:11,442 n:11,442 *n:(10)*	Sample: Community survey Age: <14-60+ Population: Taiwanese Indigenous Peoples	Mixed methods (psychiatric interview, and other sources applied to Textbook of Psychiatry 1940 criteria)	To investigate the characteristics of mental disorders in Indigenous subtribes and explore the relationship between mental illness and different levels of social development.	• During the study period, ten Indigenous participants were identified by the research team with MDP. All were from the same tribe. A further four cases were classified as 'other psychosis' due to the brevity of symptoms, the late age of onset, or the history of only a single illness episode. • Of these ten cases, seven were classified as manic being seen mostly amongst males, two were classified as depressive both were in females, and one was cyclic. • This amounted to a rate of 0.9 per 1,000 people, compared to the known rate of 0.7 per 1,000 in the comparison ethnic group. • The natural duration of symptoms varied from <16 weeks to under 24 months, and all ten cases were characterised by multiple episodes of illness. This was in the context of no access to medical or psychiatric treatment.	Low
Sampath (1974)	N:214 n:214 *n:(10)*	Sample: Community survey Age: 15+ Population: Inuit, Canada	Research interview (DSM-II)	To describe the prevalence of psychiatric disorders in an Indigenous settlement.	• In the Indigenous community sample (N=214), ten cases of Affective Psychoses were identified producing an estimated rate of 46 per 1,000. Nine were female, and one male.	Low
Studies occurring exclusively with Indigenous participants: Mental health care study						
Aoun and Gregory (1998)	N:343 n:343 *n:(7)*	Sample: Psychiatric patients Age: 6-18+ Population: Alaska Natives, United States	Clinical records (DSM-III-R)	To report rates of psychiatric disorder in a Alaska Native sample accessing community mental health services, and provide an explanation for these findings.	• In a community health setting servicing an Indigenous community, the rate of patients receiving a BD diagnosis was low (less than 3%). This related to 7 Indigenous patients with BD.	Low

Table 2. Key descriptive information and findings of 25 reviewed studies (Continued)

Studies occurring exclusively with Indigenous participants: Qualitative study						
Harris et al (2015)	N:11 n:11 *n:(11)*	Sample: NS Age: NS Population: New Zealand Māori women	NS	To identify and understand help-seeking patterns and stories of recovery and wellbeing in women with BD.	• Indigenous women reported exposure to childhood adversity and experiences of psychosocial stressors over the life-course that were not addressed by systems or services before or following BD diagnosis. • Indigenous women experienced treatment as primarily medication focused, without psychological intervention or assistance to address psychosocial stressors. • Indigenous women experienced improved wellbeing through psychosocial stability, and involvement in roles/activities including Indigenous arts, healing and family practices.	Low
Studies using other methods						
Kuipers et al (2012)	N:411 n:198 *n:(0*)*	Sample: Coronial records Age: <14-50 Population: Indigenous Australians	NS	To analyse coronial information to identify factors associated with completed suicides over approximately one decade.	• Records of Indigenous deaths revealed symptoms of mental illness in cases of completed suicide, but a complete absence of formal BD diagnosis and lower rates of other diagnoses. • This differed markedly from coroners reports in the comparison ethnic sample and was interpreted as possibly reflecting reduced access to MHS and greater exposure to risk factors arising from the impact of colonisation. • Unable to report all results as they were not presented for Indigenous sample.	Low
Melroy-Greif et al (2017)	N:834 n:299 *n:(113*)*	Sample: Genetic Age: 18+ Population: American Indian	Research interview (SSAGA)	To investigate genetic influences on chronotype in two admixed populations: a young adult sample of Hispanics and a family-based sample of American Indian peoples.	• In a sample including Indigenous participants, findings were replicated from other research, showing that genetic variants associated with BD in the Indigenous sample also weakly predicted the risk for being an owl (i.e. people who are more alert in the evening, and go to bed and wake later).	Low
Mitchell and Romans (2003)	N:81 n:6 *n:(6)*	Sample: Otago Bipolar Register Age: Mdn=45-49 Population: New Zealand Māori	Clinical records (DSM-III-R)	Is religious coping an important factor in managing psychiatric illness, and how does this impact on symptom management and clinical/patient relationships?	• Of the six Indigenous people with BD who completed the questionnaire, there was a greater reported mean level of conflict between the advice of their spiritual leader and of their doctor • This amounted to a m=7.6, SD=3.8 on a scale from 1-10, where the mean for the comparison ethnic group was m=1.7, SD=3.2.	Low

*** approxite calculated from numerical information reported within study**
AUDADIS **(versions IV; 5) Alcohol Use Disorder and Associated Disabilities Interview Schedule (DSM-IV Version; DSM-5 Version)**
CIDI **Composite International Diagnostic Interview**
DSM **(versions III-R; IV; 5) Diagnostic and Statistical Manual of Mental Disorders (Third Edition – Revised; Fourth Edition; Fifth Edition)**
HoNOS **Health of the Nation Outcome Scale**
ICD **(versions 9; 9CM; 10) International Classification of Diseases (Ninth Revision; Ninth Revision, Clinical Modification; Tenth Revision)**
Indig **Indigenous**
SSAGA **Semi-Structured Assessment for the Genetics of Alcoholism**
SCID-I **Structured Clinical Interview for DSM-IV Axis I Disorders**
NS **Not Stated**

2005; Melroy-Greif et al., 2017; Mitchell & Romans, 2003; Nasir et al., 2018; Rin & Lin, 1962; Sampath, 1974). Nine studies had research aims specifically related to BD (Almeida & Fenner, 2002; Bih et al., 2008; Blanco et al., 2017; Grant et al., 2005; Harris et al., 2015; Mellsop et al., 2007; Mitchell & Romans, 2003; Schluter et al., 2017; Tapsell et al., 2018), and the remaining 16 looked more broadly at other factors associated with mental illness (Aoun & Gregory, 1998; Barreto & Segal, 2005; Baxter et al., 2006; Beaglehole, 1939; Butler et al., 2007; Cawte, 1964; Coleman et al., 2016; Dharmawardene & Menkes, 2015; Kuipers et al., 2012; Melroy-Greif et al., 2017; Muñoz et al., 1966; Nasir et al., 2018; Pickner et al., 2016; Rin & Lin, 1962; Sampath, 1974; Sentell et al., 2013).

Risk of Bias

Only five studies were deemed to be high quality for the purpose of this review (Baxter et al., 2006; Grant et al., 2005; Nasir et al., 2018; Schluter et al., 2017; Tapsell et al., 2018). While studies may have used high quality methods for the research question they were designed to answer, for this review the vast majority were given a low quality rating due to their limited focus on producing knowledge about Indigenous peoples with BD. Common characteristics of studies rated as low quality included: that study designs and aims were not tailored to generate knowledge about Indigenous peoples with BD; the size of the Indigenous sample was limited or not justified; the process of participant selection and sample frame used did not evidence recruitment of subjects representative of the Indigenous target population; measures to ensure participation or describe the characteristics of Indigenous non-responders were not reported; results for all analyses were not presented for the Indigenous sample; conclusions derived from the data were not able to inform knowledge about Indigenous peoples with BD; and ethical approval or consent from Indigenous participants was not discussed. While the risk of bias and quality of studies was noted as an outcome of the review, papers were not excluded from the review based on the issues identified (see Table 3 and 4).

Synthesis of Results

Due to the variety of research methods, and the difficulty comparing findings across diverse methodologies a combined data synthesis was not able to be completed. Instead studies were organised and results presented by research design, then by method. This included: representative community studies (Baxter et al., 2006; Blanco et al., 2017; Grant et al., 2005), context specific studies (Almeida & Fenner, 2002; Barreto & Segal, 2005; Beaglehole, 1939; Bih et al., 2008; Butler et al., 2007; Coleman et al., 2016; Dharmawardene & Menkes, 2015; Mellsop et al., 2007; Muñoz et al., 1966; Pickner et al., 2016; Schluter et al., 2017; Sentell et al., 2013; Tapsell et al., 2018), studies occurring exclusively with Indigenous participants (Aoun & Gregory, 1998; Cawte, 1964; Harris et al., 2015; Nasir et al., 2018; Rin & Lin, 1962; Sampath, 1974) and other methods (Kuipers et al., 2012; Melroy-Greif et al., 2017; Mitchell & Romans, 2003). Results for each research method was presented hierarchically beginning with findings from the highest quality papers.

Representative Community Studies

Only three of the 25 studies included in the review examined BD within a representative community sample (Baxter et al., 2006; Blanco et al., 2017; Grant et al., 2005). Across these studies, particular care was taken to ensure the sample recruited was nationally representative by prioritising the inclusion of ethnic minority groups. These studies were conducted in New Zealand (Baxter et al., 2006), and the United States of America (USA) (Blanco et al., 2017; Grant et al., 2005). They reported higher prevalence rates of BD in the Indigenous community samples compared to rates within majority ethnic groups. Differences remained after controlling for sociodemographic factors. In the Indigenous peoples studied, 12 month prevalence rates of BD were found to range between 3.3% and 3.9%, this contrasted with lower rates found in comparison ethnic groups that ranged between 1.5% and 2.0%.

Context Specific Studies

Studies using mental health care records. Five papers analysed data obtained from the clinical records of patients enrolled with mental health services (Barreto & Segal, 2005; Bih et al., 2008; Coleman et al., 2016; Mellsop et al., 2007; Tapsell et al., 2018). One New Zealand study compared rates of inpatient and community mental health service admission during 2014 for the Indigenous and comparison ethnic group and these rates were population adjusted. No discernible differences were found in the rate of service contact for BD by ethnicity. However, the sample size was small, with 52 Indigenous patients with BD included in this study (Tapsell et al., 2018).

Coleman and colleagues reviewed patient records obtained from non-profit health care insurers across 11 states of the USA in 2011. While three Indigenous populations were included in this sample, the results for one group could not be extracted as they were subsumed into an 'other' ethnic category (Coleman et al., 2016). In addition the study may have been biased by including only patients enrolled in the non-profit health care system. The characteristics of patients enrolled may have varied between ethnic backgrounds, obscuring 'true rates' of disorder in the population. For the two remaining samples of Indigenous patients in this study, a significantly higher rate of BD (1.5%) was found in patient records. Despite this, there was a lower rate of filled prescriptions although this did not reach the level of significance. While it was also reported that the Indigenous sample had greater odds of receiving psychotherapy than the comparison ethnic group, this finding was based on approximately 11 patients from the total sample of 430 Indigenous patients with a BD diagnosis (Coleman et al., 2016).

The three remaining studies presented results related to BD in a sample of patients from Taiwan (Bih et al., 2008), the state of California (Barreto & Segal, 2005), and from eight districts where New Zealand mental health services were provided (Mellsop et al., 2007). In two of these it was not possible to establish or approximate the number of Indigenous patients with BD in the sample from which study conclusions were drawn (Bih et al., 2008; Mellsop et al., 2007). The Californian study examined mental health service use where full records were available across six counties, and found more cases

Table 3. AXIS rating for 23 cross-sectional studies

Author	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
Baxter et al	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Grant et al	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes
Nasir et al	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Schluter et al	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes
Tapsell et al	Yes	Yes	Yes	Yes	Yes	Yes	NS	Yes	Yes	Yes	Yes	Yes	NS	No	Yes	No	Yes	Yes	No	No
Blanco et al	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	No	Yes
Butler et al	Yes	Yes	No	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes
Coleman et al	Yes	Yes	No	Yes	No	Yes	NS	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	No
Dharmawardene & Menkes	Yes	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	No	Yes
Sentell et al	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	No	Yes	No	No
Cawte	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No
Beaglehole	No	No	No	No	No	No	NS	No	No	No	No	No	Yes	No	No	Yes	No	No	Yes	No
Aoun & Gregory	Yes	No	No	No	No	No	NS	Yes	No	Yes	No	No	NS	NS	Yes	No	No	Yes	Yes	No
Bih et al	Yes	Yes	No	No	No	No	NS	No	No	Yes	Yes	Yes	Yes	NS	Yes	No	No	Yes	Yes	No
Almeida & Fenner	No	No	No	No	Yes	Yes	NS	Yes	No	Yes	Yes	No	No	NS	Yes	No	No	Yes	Yes	No
Pickner et al	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	No	Yes	No	No	No	Yes	No	No	Yes	Yes	No
Sampath	No	No	No	Yes	No	No	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No
Rin & Lin	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No
Mellsop et al	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No
Munoz et al	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	No	No	No
Mitchell & Romans	No	No	No	No	No	No	No	No	Yes	No	Yes	No	No	No	No	No	No	No	Yes	Yes
Barreto & Segal	Yes	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes	Yes
Melroy-Greif et al	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes

Q1: The aims/objectives of the study were clear and of relevance to Indigenous people and BD; Q2: The study design was appropriate for the stated aim(s) and of relevance to Indigenous people and BD; Q3: The sample size of Indigenous participants was justified to inform knowledge about Indigenous people and BD; Q4: The target/reference population of Indigenous people was clearly defined; Q5: The sample frame was taken from an appropriate population base representative of the Indigenous target population under investigation; Q6: The process of selection recruited subjects that represented the target Indigenous population under investigation; Q7: Measures were undertaken to address & categorise Indigenous non-responders: Q8: The risk factor & outcome variables measured were appropriate to the aims of the study and of relevance to Indigenous people and BD; Q9: The risk factor & outcome variables were measured using valid instruments for Indigenous people and BD; Q10: It was clear how statistical significance and/or precision estimates were determined for Indigenous people and BD; Q11: The methods were sufficiently described to allow replication of studies to inform future research about Indigenous people and BD; Q12: The basic data for Indigenous people and BD were adequately described: Q13: The response rate of Indigenous people with BD minimises concerns about non-response bias; Q14: If appropriate, info about Indigenous non-responders is described; Q15: The results are internally consistent for the Indigenous sample; Q16: The results for all analyses described in the methods are presented for Indigenous people and BD; Q17: The authors' discussions/conclusions involving Indigenous people and BD are justified by results; Q18: Limitations involving Indigenous people and BD are discussed; Q19: Funding sources or COI that may affect authors' interpretation were avoided to inform knowledge about Indigenous people and BD; Q20: Ethical approval or consent of Indigenous participants attained. NS = Not Stated

Table 4. JBI rating for 2 qualitative studies

Author	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Harris et al	NS	NS	NS	NS	NS	Yes	No	Yes	NS	No
Kuipers et al	NS	Yes	Yes	No	NS	No	No	No	Yes	No

Q1:There is congruity between the stated philosophical perspective and the research methodology; Q2:There is congruity between the research methodology and the research question; Q3: There is congruity between the research methodology and the methods used to collect data: Q4: There is congruity between the research methodology and the representation and analysis of data pertaining to the Indigenous sample and BD; Q5: There is congruity between the research methodology and the interpretation of results; Q6: There is a statement locating the researcher culturally/theorectically; Q7: The influence of the researcher on the research and vice-versa is addressed; Q8: Indigenous participants, and their voices, are adequately represented; Q9: The research has ethical approval; Q10: The conclusions pertaining to Indigenous participants and BD flow from the analysis or interpretation of the data.
NS = Not Stated

of BD in Indigenous psychiatric patients than was seen in comparison ethnic groups (Barreto & Segal, 2005). The study conducted in Taiwan found that the Indigenous sample of BD patients had a lower treated incidence within services than the comparison ethnic group (Bih et al., 2008). The New Zealand study, which examined the profile of symptoms during a BD episode rather than incidence, found that clinicians rated Indigenous patients with BD differently than other ethnic groups on measures of overactivity/disruptiveness, substance use and psychotic symptoms (Mellsop et al., 2007).

Studies Using Psychiatric Inpatient Records. Five studies investigated BD in psychiatric inpatient settings (Almeida & Fenner, 2002; Beaglehole, 1939; Dharmawardene & Menkes, 2015; Muñoz et al., 1966; Sentell et al., 2013). One conducted in a New Zealand hospital, found lower rates of BD among Indigenous inpatients compared to other ethnicities (Dharmawardene & Menkes, 2015). There were no ethnic differences between inpatients with BD on measures of substance use (Dharmawardene & Menkes, 2015). A study undertaken in Hawai'i examined the hospital records for psychiatric inpatients for whom ethnicity data was recorded. Indigenous patients were found to have lower rates of psychiatric admission for BD and significantly shorter hospital stays than the white comparison group after controlling for sociodemographic factors (Sentell et al., 2013). Study authors also compared rates of psychiatric admission between Native Hawaiian, Asian American and Pacific Island ethnic groups, and noted the importance of doing so as it was commonplace in research for data from these peoples to be combined into an 'Other' ethnic category. This analysis revealed that the Indigenous sample had significantly higher rates of hospitalisation for BD than other Asian American and Pacific Island ethnic groups.

The three remaining studies commented on inpatient admission trends over different time periods (Almeida & Fenner, 2002; Beaglehole, 1939; Muñoz et al., 1966). The earliest study reported 89 cases of inpatient admission for Indigenous patients with BD to New Zealand hospitals between 1925-1935 (Beaglehole, 1939). One found no documented cases of psychiatric admission for Indigenous patients with BD in Santiago, Chile between 1940-1963 (Muñoz et al., 1966). The final study noted that of the 224 Indigenous patients with BD admitted to Western Australian hospitals between 1980-1998, most first admissions occurred in Indigenous patients before the age of 65 (Almeida & Fenner, 2002).

Studies Using General Health Records. Two studies investigated BD in general health care settings (Pickner et al., 2016; Schluter et al., 2017). One developed a profile of BD amongst a sample of older adults in receipt of home-based health care services in New Zealand (Schluter et al., 2017). Clinical records from this study found 45 Indigenous participants with a diagnosis of BD in the elderly sample, a rate of 1.2%. After adjusting for sociodemographic factors, there appeared to be significantly less elderly Indigenous patients in the New Zealand home-based care sample with BD than there were in other ethnic groups (Schluter et al., 2017). The second study sought to identify patterns of Emergency Department (ED) visits for children aged between five and 18 years with mental health concerns (Pickner et al., 2016). Clinical records obtained from six hospitals in upper Midwest USA found 15 Indigenous children and youth presented to the ED for mental health difficulties linked to a diagnosis of BD. It was noted that the proportion of ED visits for mental health difficulties related to BD was greater in Indigenous paediatric patients than was seen in children from comparison ethnic groups.

Prison Study. One study screened a sample of sentenced and reception inmates from New South Wales (NSW), Australia for mental health symptoms (Butler et al., 2007). This study utilised data obtained from research interviews conducted over a four month period during 2001, and identified 11 Indigenous participants with a history of manic episodes. In this prison sample, rates of BD symptoms did not appear to differ by ethnicity.

Studies Occurring Exclusively with Indigenous Participants

Community Surveys. Four studies examined BD exclusively within Indigenous community samples (Cawte, 1964; Nasir et al., 2018; Rin & Lin, 1962; Sampath, 1974). Nasir et al used the SCID-I to identify 13 cases of BD in an Indigenous community sample residing within urban and remote parts of Queensland and NSW, Australia (Nasir et al., 2018). This represented a crude 12 month prevalence rate of 1.6%, and lifetime prevalence rate of 2.4% within the Indigenous Australian sample. The three remaining studies investigated rates of BD in Indigenous communities within Canada, Taiwan and Australia, and identified no more than ten people with BD in each community sample based on information obtained by the research team from various sources (Cawte, 1964; Rin & Lin, 1962; Sampath, 1974).

Mental Health Care Study. One study investigated rates of psychiatric disorders for Indigenous patients attending a community mental health centre in Alaska. Seven Indigenous people with BD were identified as patients utilising this mental health service between October 1990 and April 1993, representing 2.8% of patients seen at the service during the study period (Aoun & Gregory, 1998).

Qualitative Study. One qualitative paper investigated the experiences of 11 Indigenous women living with BD in New Zealand (Harris et al., 2015). Themes from interviews indicated that the Indigenous women with BD experienced childhood adversity and psychosocial stressors that systems and mental health services had consistently failed to address. Improvements to wellbeing over time were attributed by the women to increased psychosocial stability, and through opportunities to engage in meaningful roles and activities including Indigenous arts, healing and family practices. While this study provided valuable insights into the experiences of one group of Indigenous women living with BD, it was limited by the lack of detailed methodology reported.

Studies using Other Methods

A further three studies from populations that differed from those categorised above were included in the review as they presented findings pertaining to Indigenous peoples with BD (Kuipers et al., 2012; Melroy-Greif et al., 2017; Mitchell & Romans, 2003). One of these was an American study that analysed genetic material taken from two ethnic minority groups which included an Indigenous sample (Melroy-Greif et al., 2017). Findings replicated studies undertaken previously with subjects of European ancestry, and showed that genetic variants associated with BD in the Indigenous sample weakly predicted the risk for a sleep chronotype favouring evening alertness, and a later sleep-wake cycle (Melroy-Greif et al., 2017). An Australian study extracted qualitative data from Northern Territory coronial records in cases of completed suicide that occurred between 2000-2010 (Kuipers et al., 2012). While symptoms of underlying mental illness were found in the coronial records of Indigenous peoples, none had been formally diagnosed with BD prior to their death – a theme that differed markedly from the records of the comparison ethnic group (Kuipers et al., 2012). The final New Zealand study investigated the relevance of religion and spirituality to the management of BD illness (Mitchell & Romans, 2003). Participants were drawn from the Otago BD register, a group of people diagnosed with BD with an interest in contributing to BD research. Questionnaires were posted to all registrants. Responses were received from six Indigenous participants, with researchers noting that they reported a greater degree of conflict between the advice of their spiritual leader and that of their doctor than other respondents (Mitchell & Romans, 2003).

DISCUSSION

Summary of Evidence

The only finding that was consistent in studies of the same methodology suggested the prevalence of BD may be greater in Indigenous peoples after controlling for sociodemographic inequities, using representative community samples. Each of these studies focused on features of the individual, and risked maintaining a deficit-perspective by failing to explore the impact of wider structural influences that may contribute to any differences in BD rates amongst Indigenous peoples. If indeed the prevalence of BD is greater in genetically diverse Indigenous community samples, this is not likely to be due to biological loading alone. There may be many contributing factors that require further exploration including the lack of culturally appropriate tools to aid in the process of differential diagnosis, and potential inadequacies in diagnostic and health systems (Kirmayer & Pedersen, 2014; LoGiudice et al., 2006; Tapsell & Mellsop, 2007). Furthermore, health research itself may contribute to perceived differences, with evidence suggesting that researchers tend to frame and interpret Indigenous experiences of health inequity at a biological or individual level, thus limiting the exploration and implementation of strategies related to the social, environmental and economic determinants of health (Kirmayer & Pedersen, 2014; Palmer et al., 2019).

Inconsistent or contradictory findings, even within similar study designs, was a frequent finding of this review. The higher prevalence rates for Indigenous peoples in community samples were not consistently reflected in health service or hospital admission data, or in rates of BD diagnosed in prison settings. In addition, the rate of Indigenous peoples living with BD appeared to reduce in community settings with advanced age, yet in Indigenous paediatric patients, ED mental health visits for BD were higher. The discrepancy between community sample prevalence, health service access, and changes over age suggest the level of unmet need for people living with BD may be greater among Indigenous populations.

Although this review found little consistent evidence for inequities in BD between Indigenous and non-Indigenous ethnic groups, this is at odds with the extent of concern about the state of Indigenous mental health more broadly (Gracey & King, 2009b; UN Permanent Forum on Indigenous Issues, 2015; World Health Organization, 2013). There is evidence worldwide of a greater burden of mental health inequities affecting the world's Indigenous peoples, with research to date tending to be limited in focus to difficulties reflected by higher rates of schizophrenia, substance use and suicide or self-harm behaviours (Azzopardi et al., 2018; Gynther et al., 2019; Hunter & Harvey, 2002; Jorm, Bourchier, Cvetkovski, & Stewart, 2012; Kake, Arnold, & P, 2008; Lehti, Niemelä, Hoven, Mandell, & Sourander, 2009; Nelson & Wilson, 2017; Williamson et al., 2014). Several studies identify elevated rates of mental distress amongst Indigenous children and young people, raising concerns about the potential risk of greater mental health inequities to come in future generations (Azzopardi et al., 2018; Lehti et al., 2009; Williamson et al., 2014). These findings from the mental health literature are also consistent with other health research, which shows that differences between life expectancy, morbidity, mortality, educational attainment, and economic status predominantly privilege non-Indigenous ethnic groups (Anderson et al., 2016).

The most notable, and significant finding of this review was the paucity of quality published research designed to inform knowledge about Indigenous peoples with BD. The evidence base informing current health initiatives for Indigenous peoples with BD is extremely limited, based almost entirely on descriptive data, reliant on incomplete analysis due to small sample sizes or no cases of BD in the Indigenous sample, and derived from highly heterogeneous research aims. The method of BD diagnosis also varied considerably between studies, with the potential for bias to be introduced particularly in studies relying solely on clinical diagnosis. As a result, the profile of BD in Indigenous peoples is essentially unknown and it is not clear what would be required to begin to improve health equity. While this review has identified that research has produced data related to Indigenous peoples with BD, consistent with the critique of other Indigenous authors, there is a risk of relying on research findings to address inequities when studies were not designed to answer questions about Indigenous peoples with BD (Reid et al., 2019).

Given the vast gaps in knowledge, resources must be invested into the development of study designs where questions aim to understand the profile of Indigenous peoples with BD. A significant gap in knowledge involves research that focuses on the ways in which systemic, societal and lifecourse factors impact Indigenous peoples with BD. To address this, future research will require the utilisation of a decolonised framework (Smith, 2012). Using modified quality appraisal tools informed by Indigenous research principles may be one approach other researchers could employ to improve the utility of future research with

Indigenous peoples with BD (Huria et al., 2019; McDonald et al., 2010; Morton Ninomiya et al., 2017; Smith, 2012).

Limitations

Although the strengths of the review include that this is the first known to investigate BD in Indigenous populations, this study does have limitations that need to be considered. Firstly, there may be community initiatives involving Indigenous peoples with BD, but due to limited resources the results of these may not have been published. Grey literature was also not included, and this may further limit the review by privileging non-Indigenous research agendas. In addition, the reliance on primary data sources reduces the ability to be certain of findings reported in the results. Finally, the exclusion of studies not in English is a further limitation.

Conclusions

In conclusion, this review identified the need to prioritise quality research design specifically aimed towards describing the experiences and needs of Indigenous peoples affected by BD. This research is required to identify the profile of Indigenous peoples with BD, and seek to rectify any factors maintaining current health inequities.

References

Almeida, O. P., & Fenner, S. (2002). Bipolar disorder: Similarities and differences between patients with illness onset before and after 65 years of age. *International Psychogeriatrics, 14*(3), 311-322. doi:10.1017/s1041610202008517

American Psychiatric Association (Ed.) (2013). *Diagnostic and statistical manual of mental disorders : DSM-5* (Fifth edition. ed.). Arlington, VA: American Psychiatric Publishing.

Anderson, I., Robson, B., Connolly, M., Al-Yaman, F., Bjertness, E., King, A., . . . Yap, L. (2016). Indigenous and tribal peoples' health (The Lancet-Lowitja Institute Global Collaboration): a population study. *Lancet, 388*(10040), 131-157.

Angst, J. (2004). Bipolar disorder: A seriously underestimated health burden. *European Archives of Psychiatry and Clinical Neuroscience, 254*(2), 59-60.

Aoun, S. L., & Gregory, R. J. (1998). Mental disorders of Eskimos seen at a community mental health center in western Alaska. *Psychiatric Services, 49*(11), 1485-1487.

Azzopardi, P. S., Sawyer, S. M., Carlin, J. B., Degenhardt, L., Brown, N., Brown, A. D., & Patton, G. C. (2018). Health and wellbeing of Indigenous adolescents in Australia: a systematic synthesis of population data. *Lancet, 391*(10122), 766-782. doi:10.1016/S0140-6736(17)32141-4

Barreto, R. M., & Segal, S. P. (2005). Use of mental health services by Asian Americans. *Psychiatric Services, 56*(6), 746-748. doi:10.1176/appi.ps.56.6.746

Baxter, J. (2008). *Maori mental health needs profile: a review of the evidence*. Palmerston North, New Zealand: Te Rau Matatini.

Baxter, J., Kokaua, J., Wells, J. E., McGee, M. A., Oakley Browne, M. A., & New Zealand Mental Health Survey Research, T. (2006). Ethnic comparisons of the 12 month prevalence of mental disorders and treatment contact in Te Rau Hinengaro: the New Zealand Mental Health Survey. *Australian and New Zealand Journal of Psychiatry, 40*(10), 905-913.

Beaglehole, E. (1939). Culture and psychosis in New Zealand. *Journal of the Polynesian Society, 48*, 144-155.

Bih, S.-H., Chien, I. C., Chou, Y.-J., Lin, C.-H., Lee, C.-H., & Chou, P. (2008). The treated prevalence and incidence of bipolar disorder among national health insurance enrollees in Taiwan, 1996-2003. *Social Psychiatry and Psychiatric Epidemiology, 43*(11), 860-865. doi:http://dx.doi.org/10.1007/s00127-008-0378-1

Black, E., Kisely, S., Alichniewicz, K., & Toombs, M. (2017). Mood and anxiety disorders in Australia and New Zealand's indigenous populations: A systematic review and meta-analysis. *Psychiatry Research, 255*, 128-138.

Blanco, C., Compton, W. M., Saha, T. D., Goldstein, B. I., Ruan, W. J., Huang, B. J., & Grant, B. F. (2017). Epidemiology of DSM-5 bipolar I disorder: Results from the National Epidemiologic Survey on Alcohol and Related Conditions - III. *Journal of Psychiatric Research, 84*, 310-317. doi:10.1016/j.jpsychires.2016.10.003

Butler, T., Allnutt, S., Kariminia, A., & Cain, D. (2007). Mental health status of Aboriginal and non-Aboriginal Australian prisoners. *Australian and New Zealand Journal of Psychiatry, 41*(5), 429-435.

Cawte, J. E. (1964). Australian ethnopsychiatry in the field: A sampling in north kimberley. *Medical Journal of Australia, 1-51*(13), 467-472.

Coleman, K. J., Stewart, C., Waitzfelder, B. E., Zeber, J. E., Morales, L. S., Ahmed, A. T., . . . Simon, G. E. (2016). Racial-ethnic differences in psychiatric diagnoses and treatment across 11 health care systems in the mental health research network. *Psychiatric Services, 67*(7), 749-757. doi:10.1176/appi.ps.201500217

Dharmawardene, V., & Menkes, D. B. (2015). Substance use disorders in New Zealand adults with severe mental illness: descriptive study of an acute inpatient population. *Australasian Psychiatry, 23*(3), 236-240. doi:10.1177/1039856215586147

Downes, M. J., Brennan, M. L., Williams, H. C., & Dean, R. S. (2016). Development of a critical appraisal tool to assess the quality of cross-sectional studies (AXIS). *BMJ Open, 6*. doi:10.1136/bmjopen-2016-011458

Drawson, A. S., Toombs, E., & Mushquash, C. J. (2017). Indigenous research methods: A systematic review. *International Indigenous Policy Journal, 8*(2). doi:10.18584/iipj.2017.8.2.5

Durie, M. (2011). Indigenous mental health 2035: future takers, future makers and transformational potential. *Australasian Psychiatry, 19*(S1), S8-S11. doi:10.3109/10398562.2011.583058

Gracey, M., & King, M. (2009a). Indigenous health part 1: Determinants and disease patterns. *The Lancet, 374*(9683), 65-75.

Gracey, M., & King, M. (2009b). Indigenous health part 1: determinants and disease patterns. *Lancet, 374*(9683), 65-75. doi:10.1016/S0140-6736(09)60914-4

Grant, B. F., Stinson, F. S., Hasin, D. S., Dawson, D. A., Chou, S. P., Ruan, W. J., & Huang, B. (2005). Prevalence, correlates, and comorbidity of bipolar I disorder and axis I and II disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Clinical Psychiatry, 66*(10), 1205-1215. doi:10.4088/JCP.v66n1001

Gynther, B., Charlson, F., Obrecht, K., Waller, M., Santomauro, D., Whiteford, H., & Hunter, E. (2019). The epidemiology of psychosis in Indigenous populations in

Cape York and the Torres Strait. *EClinicalMedicine 10*, 68-77.

Haitana, T. (2017, 16 September 2017). *How does research inform knowledge about bipolar disorder to reduce mental health inequities for indigenous people?* Paper presented at the Australasian Society for Bipolar and Depressive Disorders (ASBDD) Conference, Melbourne, Australia.

Haitana, T., Pitama, S., Crowe, M., & Lacey, C. (2018). Priorities for reducing mental health inequities for indigenous people with bipolar disorder - A systematic review. *Bipolar Disorders, 20 (Supplement 1)*, 57.

Harris, P., Waitoki, W., & Nikora, W. (2015). Seeking wellbeing for Maori women with bipolar disorder: creativity and art. *Psychology Aotearoa, 7*(1), 70-75.

Harris, R., Cormack, D., Tobias, M., Yeh, L.-C., Talamaivao, N., Minster, J., & Timutimu, R. (2012). The pervasive effects of racism: Experiences of racial discrimination in New Zealand over time and associations with multiple health domains. *Social Science and Medicine, 74*(3), 408-415. doi:10.1016/j.socscimed.2011.11.004

Hernandez, A., Ruano, A. L., Marchal, B., San Sebastian, M., & Flores, W. (2017). Engaging with complexity to improve the health of indigenous people: a call for the use of systems thinking to tackle health inequity. *International Journal for Equity in Health, 16*(26), 1-5.

Hirschfeld, R. M. A., Lewis, L., & Vornik, L. A. (2003). Perceptions and impact of bipolar disorder: How far have we really come? Results of the National Depressive and Manic-Depressive Association 2000 Survey of individuals with bipolar disorder. *Journal of Clinical Psychiatry, 64*(2), 161-174.

Hunter, E., & Harvey, D. (2002). Indigenous suicide in Australia, New Zealand, Canada and the United States. *Emergency Medicine, 14*(1), 14-23. doi:10.1046/j.1442-2026.2002.00281.x

Huria, T., Palmer, S., C., Pitama, S., Beckert, L., Lacey, C., Ewen, S., & Smith, L. T. (2019). Consolidated criteria for strengthening reporting of health research involving indigenous peoples: the CONSIDER statement. *BMC Medical Research Methodology, 19*(1), 1-9. doi:10.1186/s12874-019-0815-8

Jorm, A. F., Bourchier, S. J., Cvetkovski, S., & Stewart, G. (2012). Mental health of Indigenous Australians: a review of findings from community surveys. *Medical Journal of Australia, 196*(2), 118-121. doi:10.5694/mja11.10041

Judd, L. L., Akiskal, H. S., Schettler, P. J., Coryell, W., Endicott, J., Maser, J. D., . . . Keller, M. B. (2003). A prospective investigation of the natural history of the long-term weekly symptomatic status of bipolar II disorder. *Archives of General Psychiatry, 60*(3), 261-269.

Judd, L. L., Akiskal, H. S., Schettler, P. J., Endicott, J., Maser, J., Solomon, D. A., . . . Keller, M. B. (2002). The long-term natural history of the weekly symptomatic status of bipolar I disorder. *Archives of General Psychiatry, 59*(6), 530-537.

Kake, T., Arnold, R., & P, E. (2008). Estimating the prevalence of schizophrenia among New Zealand Maori: a capture-recapture approach. *Australian and New Zealand Journal of Psychiatry, 42*(11), 941-949.

Kirmayer, L. J., & Pedersen, D. (2014). Toward a new architecture for global mental health. *Transcultural Psychiatry, 51*(6), 759-776.

Kuipers, P., Appleton, J., & Pridmore, S. (2012). Thematic analysis of key factors associated with Indigenous and non-Indigenous suicide in the Northern Territory, Australia. *Rural & Remote Health, 12*(4), 2235.

Lehti, V., Niemelä, S., Hoven, C., Mandell, D., & Sourander, A. (2009). Mental health, substance use and suicidal behaviour among young indigenous people in the Arctic: A systematic review. *Social Science and Medicine, 69*(8), 1194-1203. doi:10.1016/j.socscimed.2009.07.045

LoGiudice, D., Smith, K., Thomas, J., Lautenschlager, N. T., Almeida, O. P., Atkinson, D., & Flicker, L. (2006). Kimberley Indigenous Cognitive Assessment tool (KICA): development of a cognitive assessment tool for older indigenous Australians. *International Psychogeriatrics, 18*(2), 269-280. doi:10.1017/S1041610205002681

McDonald, E., Priest, N., Doyle, J., Bailie, R., Anderson, I., & Waters, E. (2010). Issues and challenges for systematic reviews in indigenous health. *Journal of Epidemiology and Community Health, 64*, 643-644.

Mellsop, G., Dutu, G., & El-Badri, S. (2007). CAOS contribution to understanding cultural/ethnic differences in the prevalence of bipolar affective disorder in New Zealand. *Australian and New Zealand Journal of Psychiatry, 41*(5), 392-396. doi:http://dx.doi.org/10.1080/00048670701264636

Melroy-Greif, W. E., Gizer, I. R., Wilhelmsen, K. C., & Ehlers, C. L. (2017). Genetic Influences on Evening Preference Overlap with Those for Bipolar Disorder in a Sample of Mexican Americans and American Indians. *Twin Research and Human Genetics, 20*(6), 499-510. doi:10.1017/thg.2017.62

Merikangas, K. R., Jin, R., He, J. P., Kessler, R. C., Lee, S., Sampson, N. A., . . . Zarkov, Z. (2011). Prevalence and correlates of bipolar spectrum disorder in the world mental health survey initiative. *Archives of General Psychiatry, 68*(3), 241-251.

Michalak, E. E., Yatham, L. N., Maxwell, V., Hale, S., & Lam, R. W. (2007). The impact of bipolar disorder upon work functioning: A qualitative analysis. *Bipolar Disorders, 9*(1-2), 129-143.

Ministry of Health. (2014). *Mental health and addiction : service use 2011/12*. Retrieved from http://www.health.govt.nz/publication/mental-health-and-addiction-service-use-2011-12

Mitchell, L., & Romans, S. (2003). Spiritual beliefs in bipolar affective disorder: their relevance for illness management. *Journal of Affective Disorders, 75*(3), 247-257.

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Medicine / Public Library of Science, 6*(7), e1000097.

Morselli, P. L., Elgie, R., & Cesana, B. M. (2004). GAMIAN-Europe/BEAM survey II: cross-national analysis of unemployment, family history, treatment satisfaction and impact of the bipolar disorder on life style. *Bipolar Disorders, 6*(6), 487-497.

Morton Ninomiya, M. E., Atkinson, D., Brascoupé, S., Firestone, M., Robinson, N., Reading, J., . . . Smylie, J. K. (2017). Effective knowledge translation approaches and practices in Indigenous health research: a systematic review protocol. *Systematic Reviews, 6*(34). doi:10.1186/s13643-017-0430-x

Muñoz, L., Marconi, J., Horwitz, J., & Naveillan, P. (1966). Crosscultural definitions applied to the study of functional psychoses in Chilean Mapuches. *The British journal of psychiatry : the journal of mental science, 112*(493), 1205-1215. doi:10.1192/bjp.112.493.1205

Nasir, B. F., Toombs, M. R., Kondalsamy-Chennakesavan, S., Kisely, S., Gill, N. S., Black, E., . . . Nicholson, G. C. (2018). Common mental disorders among Indigenous people living in regional, remote and metropolitan Australia: A cross-sectional study. *BMJ Open, 8 (6) (no pagination)*(e020196). doi:http://dx.doi.org/10.1136/bmjopen-2017-020196

Nelson, S. E., & Wilson, K. (2017). The mental health of Indigenous peoples in Canada: A critical review of research. *Social Science and Medicine, 176*, 93-112. doi:10.1016/j.socscimed.2017.01.021

Palmer, S. C., Gray, H., Huria, T., Lacey, C., Beckert, L., & Pitama, S. G. (2019). Reported Māori consumer experiences of health systems and programs in qualitative research: A systematic review with meta-synthesis. *International Journal for Equity in Health, 18*, 163. doi:https://equityhealthj.biomedcentral.com/articles/10.1186/s12939-019-1057-4

Pickner, W. J., Puumala, S. E., Chaudhary, K. R., Burgess, K. M., Payne, N. R., & Kharbanda, A. B. (2016). Emergency Department Utilization for Mental Health in American Indian Children. *Journal of Pediatrics, 174*, 226-231.e223. doi:10.1016/j.jpeds.2016.03.064

Pihama, L., Reynolds, P., Smith, C., Reid, J., Smith, L. T., & Nana, R. T. (2014). Positioning Historical Trauma Theory within Aotearoa new Zealand. *AlterNative: An International Journal of Indigenous Peoples, 10*(3), 248-262. doi:10.1177/117718011401000304

Reid, P., Cormack, D., & Paine, S. J. (2019). Colonial histories, racism and health—The experience of Māori and Indigenous peoples. *Public Health*. doi:10.1016/j.puhe.2019.03.027

Rin, H., & Lin, T. Y. (1962). Mental illness among formosan aborigines as compared with the Chinese In Taiwan. *Journal of Mental Science, 108*(453), 134-146.

Robson, B., & Harris, R. (2007). *Hauora: Maori standards of health. IV : a study of the years 2000-2005*. Wellington: Te R p Rangahau Hauora a Eru P mare.

Rosa, A. R., Reinares, M., Franco, C., Comes, M., Torrent, C., Sanchez-Moreno, J., . . . Vieta, E. (2009). Clinical predictors of functional outcome of bipolar patients in remission. *Bipolar Disorders, 11*(4), 401-409.

Sampath, H. M. (1974). Prevalence of psychiatric disorders in a southern Baffin Island Eskimo settlement. *Canadian Psychiatric Association Journal, 19*(4), 363-367.

Sanchez-Moreno, J., Martinez-Aran, A., Tabares-Seisdedos, R., Torrent, C., Vieta, E., & Ayuso-Mateos, J. L. (2009). Functioning and disability in bipolar disorder: an extensive review. *Psychotherapy and Psychosomatics, 78*(5), 285-297.

Schluter, P. J., Lacey, C., Porter, R. J., & Jamieson, H. A. (2017). An epidemiological profile of bipolar disorder among older adults with complex needs: A national cross-sectional study. *Bipolar Disorders*, 1-11.

Sentell, T., Unick, G. J., Ahn, H. J., Braun, K. L., Miyamura, J., & Shumway, M. (2013). Illness Severity and Psychiatric Hospitalization Rates Among Asian Americans and Pacific Islanders. *Psychiatric Services, 64*(11), 1095-1102. doi:10.1176/appi.ps.201200408

Shepherd, C. C., Li, J., & Zubrick, S. R. (2012). Social gradients in the health of Indigenous Australians. *American Journal of Public Health, 102*(1), 107-117.

Simon, G. E. (2003). Social and economic burden of mood disorders. *Biological Psychiatry, 54*(3), 208-215.

Smith, L. (2012). *Decolonizing Methodologies: Research and Indigenous Peoples* (2nd ed. ed.). London: Zed Books.

Tapsell, R., Hallett, C., & Mellsop, G. (2018). The rate of mental health service use in New Zealand as analysed by ethnicity. *Australasian Psychiatry, 26*(3), 290-293. doi:10.1177/1039856217715989

Tapsell, R., & Mellsop, G. (2007). The Contributions of Culture and Ethnicity To New Zealand Mental Health Research Findings. *International Journal of Social Psychiatry, 53*(4), 317-324. doi:10.1177/0020764006074525

The Joanna Briggs Institute. (2017). The Joanna Briggs Institute critical appraisal tools for use in JBI systematic reviews: checklist for qualitative research. Retrieved from http://joannabriggs.org/assets/docs/critical-appraisal-tools/JBI_Critical_Appraisal-Checklist_for_Qualitative_Research2017.pdf

UN Permanent Forum on Indigenous Issues. (2015). *State of the World's Indigenous Peoples:Indigenous Peoples' Access to Health Services*. Retrieved from http://www.un.org/esa/socdev/unpfii/documents/2016/Docs-updates/SOWIP_Health.pdf

Williamson, A., Andersen, M., Redman, S., Dadds, M., D'este, C., Daniels, J., . . . Raphael, B. (2014). Measuring mental health in Indigenous young people: A review of the literature from 1998–2008. *Clinical Child Psychology and Psychiatry, 19*(2), 260-272. doi:10.1177/1359104513488373

World Health Organization. (2013). Comprehensive mental health action plan 2013–2020. *Geneva: World Health Organization*.

Yatham, L. N., Lecrubier, Y., Fieve, R. R., Davis, K. H., Harris, S. D., & Krishnan, A. A. (2004). Quality of life in patients with bipolar I depression: data from 920 patients. *Bipolar Disorders, 6*(5), 379-385.

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