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What is the meaning of Human Security in the middle of a pandemic?

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Abstract

Expanding on the 1994 Human Development Reports conceptualisation of human security, this thesis adopted a broad, people-centred approach to exploring the perceptions of human security among Aotearoa New Zealand adults twice during the COVID-19 pandemic. At each point, 10 interrelated subjective securities were examined under the category of human security – personal, health, food, cyber, community, economic, environmental, national, political, and global, to explore if and how meanings of human security cohered and changed coherently during times of great upheaval. A convenience sample of 525 New Zealanders completed an online survey examining their level of (in)security, the meaning they attributed to each of the securities, whether they had attained the securities they perceived as most important, and if their level of security was related to their perceived happiness. The Security Staircase scale was used to measure human security; an additional Adapted Security Staircase scale was included to provide further prioritisation information. Eudaimonic life satisfaction and hedonic positive and negative affect measures from the 2021 World Happiness Report were used to measure happiness.

A hierarchical human security model was detected, ascending from personal to global security, with the security items reordering across the two-time points. A proximal-distal relationship was also observed; those securities a person felt a greater sense of control over were ranked higher in importance and had a stronger relationship with well-being. Health and economic security were identified as critical areas of insecurity that required prioritisation within the 2021 Delta COVID-19 community outbreak. In line with previous research, coherent differences in human security were detected between ethnic groups and occupational statuses. These findings suggest that the Security Staircase scale may be sensitive to the socio-economic context and structural inequalities within Aotearoa New Zealand.

Overall, the study contributed to the human security definitional debate by demonstrating that a broad conceptualisation of human security, examined as a category of research and measured using a subjective scale, provided practical information that can be applied to guide policy creation, prioritisation, and evaluation within the given context. It is recommended that future applications of the Security Staircase scale include the Adapted Security Staircase scale to provide additional prioritisation information.

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Table of Contents

Abstract.....	ii
Acknowledgements	iii
Table of Contents	iv
List of Figures.....	viii
List of Tables.....	viii
Chapter 1: Overview and Critical Literature Review	1
Conceptualising Human Security	2
1994 Human Development Report	2
Personal Security	3
Health Security	4
Food Security	4
Community Security	4
Economic Security	4
Environmental Security	4
Political Security.....	5
Narrow vs Broad Conceptualisations of Human Security	5
Human Security as a Category of Research	8
Measuring Human Security.....	10
Objective Measures of Human Security	10
Subjective Measures of Human Security.....	14
Security Staircase Scale	16
Cyber Security.....	16
National Security.....	16
Human Security and Happiness	17
The Present Research	18
Aotearoa New Zealand COVID-19 Context	18
Research Aims and Questions	20
Chapter 2: Method.....	22
Design.....	22
Demographic Variables.....	22
Participants	23
Minimum Required Sample Size and Rationale.....	25
Measured Variables	25
Ten Securities under the Umbrella of Human Security	25
Global Security	25

Meanings of Human Security Items	26
Levels and Attainment of Human Security	26
Importance of Human Security Items	26
Happiness.....	27
Procedure.....	27
Data Collection Period.....	29
Data Analysis.....	29
Data Exclusions	29
Quantitative Data Analyses	29
Research Question One.....	29
Research Question Two	31
Research Question Three	31
Additional Analyses	32
Qualitative Data Analyses – Research Question Four.....	33
Chapter 3: Results.....	34
Quantitative Data Analyses	34
Descriptive Statistics	34
Research Question One	34
Research Question Two	39
Research Question Three.....	41
Qualitative Data Analyses – Research Question Four.....	47
Personal Security	47
Safety from Harm	47
Financial Stability and Access to Resources.....	49
Existential Security	51
Health Security	52
Preventative Approach.....	52
Preventative Strategies	52
Preventative Healthcare	52
Attaining Healthcare Once Unwell.....	53
Adequate and Accessible Public Healthcare	53
Food Security.....	56
Economic Security.....	56
Community Security.....	57
Environmental Security	58
National Security	59
Political Security.....	60

Cyber Security	60
Global Security	61
Meanings Compared to Previous Definitions.....	62
Broadening from Self to Family	62
Broadening from Physical to Psychological.....	62
Broadening from Here and Now to the Future	63
Human Security Pillars	63
Cross-Cutting Themes	63
Access to Human Rights.....	64
COVID-19 as a Threat to Security.....	65
Chapter 4: Discussion	68
A Brief Outline of Findings to Four Key Questions	68
Areas of Insecurity and Prioritisation in the Middle of a Pandemic	69
Health Security	69
Economic Security.....	70
Distribution of (In)security Across Aotearoa New Zealand.....	71
Links to Theory	73
Stepwise Model and Proximal-Distal Theory	73
Assemblage Theory	75
Limitations	77
Future Research Directions	78
Implications for Conceptualising and Measuring Human Security	79
Practical Applications.....	81
Conclusion.....	82
Bibliography	83
Appendix A: Copyright Permission	100
Appendix B: Alert Levels	102
Appendix C: Timeline of Key Events	103
Appendix D: Supplementary Methodological Information	107
Power Analysis Protocol Detailing Required Minimum Sample Size	107
Massey University Human Ethics Northern Committee Approval Letter	108
Facebook Adverts.....	109
Information Sheet.....	110
Support Services Information.....	112
Online Survey.....	112

Debriefing Information	120
Research Findings / Enter Prize Draw Survey	121
Automatic Screen out Messages	122
Detailed Description of Applied Inclusion and Exclusion Criteria.....	123
Appendix E: Wordle Clouds	125
Food Security	125
Community Security	126
Environmental Security.....	126
National Security.....	127
Political Security	127
Cyber Security.....	128
Global Security.....	128
Appendix F: Human Rights Examples	129

List of Figures

Figure 1 - Matrix of Security Studies	9
Figure 2 - Mean Rank Importance as a Function of Attainment	40
Figure 3 - Scatter Plot of Standardised Residuals against Standardised Predicted Values for Dependent Variable Life Satisfaction	45
Figure 4 - Histogram of Standardised Residuals for Dependent Variable Life Satisfaction	46
Figure 5 - Normal Probability Plot of Standardised Residuals for Dependent Variable Life Satisfaction	46
Figure 6 - Broadening of Human Rights as Stepping up the Security Staircase Scale – Number of Rights and Population Rights Applied to	65

List of Tables

Table 1 - Participants by Census Band	24
Table 2 - Means and Standard Deviations of Variables ($n=525$)	34
Table 3 - Security Scale Items and Marginal Frequencies in Order of Attainment	35
Table 4 - Guttman Scalogram Test Statistics	36
Table 5 - Item Measure, Fit Coefficients, and Point-Correlations for the Security Staircase Scale – Current and Prior to COVID-19	37
Table 6 - Mean Ranking for each Security Scale Item in Order of Importance	40
Table 7 - Linear Model of Predictors of Life Satisfaction ($n=455$)	42
Table 8 - Correlations of Current Security Staircase Scale Items with Well-Being Variables, Presented in Order of Ranked Importance (Confidence Intervals based on 2000 Bootstrap Samples)	43
Table 9 - Linear Model of Predictors of Life Satisfaction ($n=454$)	44

Chapter 1: Overview and Critical Literature Review

In 1994 the United Nations Development Report stressed the importance of a people-centred human security approach that focused on the welfare, safety, dignity and well-being of all people and their search for security within their daily lives. Two pillars were introduced central to human security, freedom from want and freedom from fear (United Nations Development Programme [UNDP], 1994). Building on these pillars, seven interrelated main categories of human security were outlined by the United Nations (UN) – economic, health, personal, political, food, environmental and community security. The UN acknowledged, however, that this list was not all-inclusive (United Nations Trust Fund for Human Security [UNTFHS], 2016) and that the interrelated nature of these categories means that a threat to one area is likely to flow on and impact other areas of human security (UNDP, 1994). This thesis addresses the meaning and interrelated nature of these categories in human security during a human security crisis – the 2019 COVID pandemic.

Presaging that crisis, the human security concept has gained momentum over the last two decades. It has been widely adopted by an extensive range of actors, including academics, policymakers, international organisations, non-governmental organisations, the European Union, branches of the UN and countries that have incorporated it into their political framework – Canada, Norway, Switzerland, Sweden, and Japan (Glasius, 2008; Krause, 2014; Martin & Owen, 2014). Notwithstanding, human security has met some critiques. One criticism of human security is that its definition is too macro; it is all-encompassing and lacks information about everyday prioritisations, making it challenging to apply in any real everyday situation (Paris, 2001). Two approaches of note have been proposed to tackle this criticism. One method is to narrow the concept's meaning so it might provide a better guide to academics and policymakers (Paris, 2001). An alternate approach, suggested by Paris (2001), considers human security as a legitimate category of research within security studies rather than a concept itself.

In that vein, the proposed research will examine 10 interrelated subjective securities under the umbrella of human security. These include the seven components outlined in the 1994 Human Development Report and three additional components recommended by Carr and colleagues (2020) – cyber, national, and global security. Carr et al. (2020) developed a Security Staircase scale examining nine interrelated types of subjective human security across three flights – Flight 1 (Proximal): Personal, health, food security; Flight 2 (Social): Cyber, community, economic, environmental security; and Flight 3 (Distal): Political, and national security. They recommended that future research also include the tenth security – global security. This category has logically –

and potentially psychologically – become especially important with the advent of a pandemic (COVID-19).

In line with Carr and colleagues (2020), the current research will use the Security Staircase scale to examine which of the 10 subjective securities participants feel they have attained, their overall human security score and at what level they begin to feel insecure. In addition, the present study will build on this research by investigating whether participants have attained the securities they perceive as most important and by qualitatively examining the meaning participants attribute to each of the 10 subjective securities. The current research will also explore the relationship between the perceived level of human security and subjective well-being using the World Happiness Report 2021 (Helliwell et al., 2021a) measures. Human happiness has been proposed as a significant indicator of everyday human well-being and development in recent decades, replacing macro-economic indicators like Gross Domestic Product (GDP).

The given research will occur within a unique context, COVID-19, in Aotearoa New Zealand. The COVID-19 pandemic has illustrated the interrelated nature of the 10 security components, demonstrating that the severe shock to health security has resulted in an economic crisis that has flown on to affect every aspect of people's lives (UNTFHS, 2020). Thus, human security is the ideal conceptual framework for examining which areas of everyday security are most important to New Zealanders and which are at most risk within the outlined context.

Conceptualising Human Security

In the 50 years between the UN being established and the end of the Cold War, the world underwent a massive amount of change, including rapid globalisation, decolonisation, dramatic and innovative technology developments, rapid growth in GDP, rapid development within developing nations and decrease in the threat of nuclear war (UNDP, 1994). Despite this rapid growth, a fifth of the developing world's population lacked adequate food, a quarter lacked access to necessities like safe drinking water, and a third lived in severe poverty (UNDP, 1994). In addition, the rapid growth and globalisation elevated threats, with drugs, terrorism, pollution, and diseases being able to move more readily around the globe (UNDP, 1994). Within this context, the UN stressed the need for a new approach to security by introducing the concept of human security.

1994 Human Development Report

The 1994 Human Development Report emphasised the importance of broadening the concept of security from the traditional narrow focus on nation-states (for example, military threats, border security and the conflict between states) to a broader human security focus that looked at the everyday life of the people and communities within nation's borders (UNDP, 1994). The report defined human security as "safety from such chronic threats as hunger, disease and repression. And

second, it means protection from sudden and hurtful disruptions in the patterns of daily life—whether in homes, in jobs or in communities” (UNDP, 1994, p. 23). In other words, human security is concerned with the safety, well-being and dignity of all people and their search for security within their daily lives.

The 1994 Human Development Report defines the human security concept as held up by two core pillars – freedom from fear and freedom from want. The UN has recognised these components since it was first established. The U.S. Secretary of State, Edward Stettinius, stressed the importance of these pillars in June 1945 while speaking about the San Francisco conference that established the UN: “The battle of peace has to be fought on two fronts. The first is the security front where victory spells freedom from fear. The second is the economic and social front where victory means freedom from want. Only victory on both fronts can assure the world of an enduring peace...No provisions that can be written into the Charter will enable the Security Council to make the world secure from war if men and women have no security in their homes and their jobs” (UNDP, 1994, p. 3). Over time more weight has been given to freedom from fear (UNDP, 1994). By broadening the security concept through the introduction of human security, the 1994 report redistributed the weight equally between these components, emphasising that both freedom from fear and freedom from want are linked and equally important (UNDP, 1994).

The report outlined four characteristics as essential to the human security concept. Firstly, human security is a *universal* concern; it is relevant to all individuals, communities, and societies across both economically richer and poorer nations. Secondly, the seven categories of human security are *interdependent*; a threat to one area will likely flow on and impact other areas of human security. Thirdly, a focus is given to *prevention* rather than later intervention. Lastly, human security is a *people-centred* concept, focusing on individuals, communities, and societies.

This broadening of security to include people and their everyday lives substantially extended what can be interpreted as a threat to security. The 1994 Human Development Report attempted to manage this exhaustive list of threats by outlining seven interrelated and overlapping categories that most threats would fall under – economic, health, personal, political, food, environmental and community security. These categories are interrelated as it is expected that a threat to one security would have a knock-on effect to the other security areas (UNDP, 1994). The UN has acknowledged that this list is not all-inclusive (UNTFHS, 2016). The 1994 Human Development Report defined the seven security categories, and their threats as follows.

Personal Security. Personal security is derived from people being free of physical violence. Women and children are identified and especially highlighted as vulnerable groups. Examples of

threats to personal security include violent crime, street violence, domestic violence, child abuse, child neglect, rape, torture, war, ethnic tension, suicide, drug use, traffic accidents, and poverty.

Health Security. Health security is defined as addressing and preventing premature death and the spread of diseases. The causes of premature death differ between developing countries and industrial countries. Most premature deaths in developing countries are attributed to poor nutrition and unsafe environmental factors, particularly water pollution. The primary factor contributing to premature death in industrial nations was circulatory system diseases, generally caused by diet and lifestyle. Threats to health security include the spread of diseases, circulatory system diseases and cancers, inequality in the distribution of health security – threats are usually most significant for the poorest minorities, inequality in the distribution of health services, inequality in the distribution of health spending, inequalities in access to healthcare, lack of healthcare facilities and a lack of support for pregnant women and the delivery of children in some regions/countries.

Food Security. Food security is defined as everyone consistently having access to basic food. Food security requires both sufficient food to go around and for people to have access to their fair share of this food, whether through growing food, purchasing it, or being provided food through a public food distribution system. Food security can be threatened by famine, poor food distribution, inadequate access to food, and inadequate economic resources to purchase food.

Community Security. A person derives community security from identifying as part of, and receiving practical support from, a specific group of people. This group can take many forms, for example, extended family, community group, organisation, racial or ethnic group, shared cultural identity or a group with a shared set of values. Threats to community security include loss of traditional languages and practices, breakdown of the traditional extended family unit, ethnic attacks or strife, discrimination, genocide, oppressive traditional practices, inequality in the distribution of crime perpetrated against indigenous populations, indigenous populations and ethnic minorities being overrepresentation in violent crime and mental health rates.

Economic Security. The 1994 Human Development Report specified that for a person to be economically secure, they need assured income, ideally from productive paid work or, as a minimum, through access to a publicly funded safety net. Threats to economic security include job insecurity, unemployment, precarious employment, underemployment, real wages declining as inflation rises more rapidly than nominal wages, inequality in the wage distribution, inequality in the distribution of work, absence of publicly funded safety nets, and homelessness.

Environmental Security. Humans need a healthy physical environment, including land, air, and water, to be environmentally secure. Unfortunately, many practices humans have implemented have chronic, long-lasting impacts on the physical environment. Threats to environmental security

include increasing water shortage, declining access to clean water, poor sanitation, water pollution, deforestation, desertification, air pollution, population growth, land shortages driving people to marginal territories, and natural disasters.

Political Security. For a person to be politically secure, they need to reside in a nation that recognises and upholds their fundamental human rights. Threats to political security include political repression, repression of civil rights, systematic human rights violations, military and the police being used as agents of repression, and governments exercising control over ideas and information.

Almost two decades after its mainstream outing in the 1994 Human Development Report, the concept of human security and its facets above continue to be the subject of definitional debate between those proponents who advocate for a broad approach to human security and those who argue for a narrow conceptualisation (Tadjbakhsh, 2014).

Narrow vs Broad Conceptualisations of Human Security

The concept of human security has been criticised as being too macro and vague¹; it is all-encompassing and lacks information about prioritisations, making it challenging to apply in any real everyday situation (Paris, 2001; 2004; 2005). Under the definition put forward by the 1994 Human Development Report, basically, any distress or discomfort to society could be perceived as a threat to human security (Krause, 2014; Paris, 2001). Leading critics to argue that if human security is conceptualised in a manner where it includes almost anything, it effectively means nothing (Khong, 2001; Paris, 2001; 2005).

One potential solution to address this criticism is to narrow the conceptualisation of human security so that it is more focused and may better provide practical guidance for researchers and policymakers (Paris, 2001). It could be argued that most subsequent definitions of human security have narrowed the concept in some way compared with the broad, all-encompassing concept presented by the 1994 Human Development Report. The degree to which the idea has been narrowed and how it has been narrowed varies widely across definitions.

Some definitions continue to include both pillars of human security, freedom from fear and freedom from want, but narrow the concept by introducing other limiting criteria such as pervasive and critical threats (Alkire, 2003; Commission on Human Security [CHS], 2003), taking a threshold approach (Owen, 2004; 2008), and defining based on context (Bajpai, 2004; Jolly, 2014; United

¹Human Security has also been critiqued for not adding anything in addition to the existing concepts of Human Development and Human Rights, however a discussion of this critique is outside of the scope of this research. See Alkire (2003), CHS (2003), Glasius (2008), and Tadjbakhsh (2014) for a discussion on Human Security in relation to Human Development and Human Rights.

Nations General Assembly [UNGA], 2012; Winslow & Erikson, 2004). Definitions that include both pillars are often referred to as broad definitions of human security.

The Commission on Human Security was developed in 2001 to help bring about freedom from want and freedom from fear. They were tasked with fulfilling the mandate of promoting public understanding and operationalising the concept of human security to be used as a tool in policymaking (CHS, 2003; Sen, 2014). The commission's report, released in 2003, provided the following definition of human security, "to protect the vital core of all human lives in ways that enhance human freedoms and human fulfilment. Human security means protecting fundamental freedoms—freedoms that are the essence of life. It means protecting people from critical (severe) and pervasive (widespread) threats and situations. It means using processes that build on people's strengths and aspirations. It means creating political, social, environmental, economic, military, and cultural systems that together give people the building blocks of survival, livelihood and dignity" (CHS, 2003, p. 4). Similarly, Alkire defines human security as "the objective of human security is to safeguard the vital core of all human lives from critical pervasive threats, in a way that is consistent with long-term human fulfilment" (Alkire, 2003, p. 2).

Both definitions focus on the "vital core" and limit threats to those that are "critical" and "pervasive." This idea of "vital core" is described as a group of integral rights and freedoms individuals hold that are effectively the essence of life (CHS, 2003). Since what individuals view as "vital" differs across groups, communities and societies, the authors maintain that a list of what is vital cannot be created; instead, it will be determined by the context (Alkire, 2003; CHS, 2003). The notion of "critical" is concerned with severe threats that impact the core activities and functions of people's lives (Alkire, 2003; CHS, 2003). Lastly, understandings of "pervasive" are about widespread threats that are large in scale or threats that repeatedly occur over time (Alkire, 2003; CHS, 2003). In other words, the definitions proposed by Alkire (2003) and the CHS (2003) constrain human security threats from everything to only those widespread or repetitive threats that cut into the fundamental essence of human lives.

Taylor Owen (2004; 2008; 2014) argues that a threshold approach to human security helps bridge the divide between narrow and broad conceptualisations. He proposed a broad definition that borrowed from both the CHS's (2003) definition outlined above and the security dimensions identified in the 1994 Human Development Report: "Human security is the protection of the vital core of all human lives from critical and pervasive environmental, economic, food, health, personal and political threats" (Owen, 2004, p. 383; 2014, p. 60). Owen maintained that including the security dimensions helped to identify and analyse threats (Owen, 2004; 2014). Therefore, in this approach, the threats to human security are limited to only those conditions or harms that surpass a

certain threshold (Owen, 2004; 2014). Owen does not provide a specific point by which something becomes a human security threat; instead, he argues that thresholds should be determined within the given context as threats are spatially relevant, vary over time, and are politically subjective (Owen, 2014).

While context is relevant to each of the above conceptualisations of human security, additional limiting criteria have also been incorporated. Other academics argue that it is impossible to settle on a suitable definition for all societies, as threats vary across communities and change over time (Bajpai, 2004; Jolly, 2014; Winslow & Erikson, 2004). Therefore, arguing that human security should be defined within the given context. In this stance, the context narrows the definition of human security to only those things that are relevant in the given place and time. The UNGA (2012) effectively took this stance in their shared understanding of the human security concept. They took a broad perspective, including both freedom from fear and freedom from want, with a call for a comprehensive, context-specific, people-centric approach focusing on prevention. They distanced the human security concept from the Responsibility to Protect doctrine and emphasised its link to human rights and human development (UNGA, 2012).

In comparison, other proposed definitions and conceptualisations of human security are narrowed substantially by either focusing solely on the freedom from fear pillar (Krause, 2004; 2009; Mack, 2004) or the freedom from want pillar (King & Murray, 2001). Authors that focus their definitions on one pillar are often referred to as proponents of the narrow conceptualisation of human security.

Mack (2004) and Krause (2004) argue that the human security concept should be narrowed to focus solely on the freedom from fear pillar due to practical utility, conceptual clarity, and analytic rigour. Krause (2009, pp. 151-152) defines human security as “protecting individuals from existential and pervasive threats to their personal safety and physical well-being.” While this definition does not solely restrict human security to violent threats, it emphasises threats to a person’s physical safety.

In comparison, King and Murray (2001) propose a definition focusing on specific freedom from want aspects, including poverty, health, education, political freedom, and democracy. They define human security as “the number of years of future life spent outside a state of generalised poverty” (King & Murray, 2001, p. 585). Interestingly, they selected these aspects based on what they believe are “important enough for human beings to fight over or to put their lives or property at great risk” (King & Murray, 2001, p. 593).

All though, at an initial glance, these definitions of human security seem incredibly varied, it is essential to highlight that they all converge on one core component of human security – both

narrow and broad definitions of human security place the focus on the protection of individuals and communities rather than states (Alkire, 2004; Hubert, 2004; Tadjbakhsh, 2014).

Notwithstanding the ongoing narrow vs broad definitional debate and the over thirty different definitions in circulation (Alkire, 2004), human security has been adopted by a range of actors, which includes academics, universities, policymakers, international organisations, non-governmental organisations, the European Union, branches of the UN and countries that have incorporated it into their political framework – Canada, Norway, Switzerland, Sweden, and Japan (Glasius, 2008; Krause, 2014; Martin & Owen, 2014). The human security coalition has accomplished several goals as a political campaign, such as negotiating an anti-landmines convention and creating an International Criminal Court (Hubert, 2004; Paris, 2001; 2004). This indicates that human security has contributed to policymaking and agenda-setting.

Human Security as a Category of Research

An alternate approach to narrowing the concept has been proposed by Ronald Paris (2001), who suggests that human security could be positioned as a distinct category of research within security studies. Accordingly, even if human security as a concept is too broad and ambiguous to create precise research questions and hypotheses, it could nevertheless play a valuable part in security studies by classifying various types of research (Paris, 2001).

Paris (2001) classified security research using a two-by-two matrix, resulting in four cells, with each cell representing a particular group of research in security studies (see Figure 1). Paris divided security studies based on the source of the security threat and whose security is in danger. He emphasised that the boundaries between the four quadrants were not absolute. Studies that fall into the cell under the headings “military, nonmilitary or both” and “societies, groups and individuals” examine human security. In other words, this cell includes research that is principally focused on examining nonmilitary threats to the well-being and safety of individuals, groups, and communities.

Using human security as a label to describe a research category rather than a concept itself has several advantages. Firstly, using the widely adopted human security terminology to label this quadrant is intuitive (Paris, 2001). Secondly, it allows actors who have adopted a human security approach to use a wide range of definitions and operationalisations, including examining human security from the broad, all-encompassing concept presented by the 1994 Human Development Report. In theory, the need to derive precise hypotheses from the concept itself is potentially eliminated. Instead, researchers within the human security category of security studies would focus on specific research questions that can be defined more precisely (Paris, 2001). Thirdly, this

Figure 1*Matrix of Security Studies*

		What Is the Source of the Security Threat?	
		Military	Military, Nonmilitary, or Both
Security for Whom?	States	<u>Cell 1</u> National security (conventional realist approach to security studies)	<u>Cell 2</u> Redefined security (e.g., environmental and economic security)
	Societies, Groups, and Individuals	<u>Cell 3</u> Intrastate security (e.g., civil war, ethnic conflict, and democide)	<u>Cell 4</u> Human security (e.g., environmental and economic threats to the survival of societies, groups, and individuals)

Reprinted from Paris, R. (2001). Human security: Paradigm shift or hot air? *International Security*, 26(2), p. 98. Copyright permission is attached as Appendix A.

approach removed the need to presuppose a particular normative agenda (Paris, 2001). Lastly, it sensibly orientated human security in relation to and differentiated it from traditional state-centric methods (Alkire, 2003; Paris, 2001).

In conclusion, presenting human security as a legitimate category within security studies, instead of a concept itself, would allow the human security discourse to extend beyond a single concept (Gasper, 2005), providing a way to move forward from the broad vs. narrow definitional debate. The current research adopted this approach by examining 10 interrelated securities under the category of human security. The broad, all-encompassing notion of human security presented by the 1994 Human Development Report is utilised. It is believed that the context, Aotearoa New Zealand during a pandemic, will limit the threats to those relevant. A people-centred approach has been taken in line with the broad and narrow definitions discussed above. The present study aims to contribute to the definitional debate by demonstrating that human security can be effectively explored as a category of research by collecting policy-relevant information, including prioritisation, that can be applied to everyday situations.

Measuring Human Security

The narrow vs. broad definitional debate has had a flow-on effect to measuring human security. Some measures focus solely on freedom from fear aspects, while others incorporate only freedom from want dimensions, and other measures attempt to take a broad approach covering both pillars. In addition, human security measures tend to focus on either objective indicators at the national level allowing cross-nation comparison, or subjective indices examining the perceptions of the individuals who live with everyday security threats.

The 1994 Human Development Report introduced the critical notion of subjective security, with a section termed ‘human security-as people see it’ (UNDP, 1994, p. 23). However, in contradiction, the indicators they suggested to help measure human security were objective state-centric measures (Homolar, 2015). For example, nationally aggregated data on Gross National Product (GNP), unemployment rates, and inflation rates were suggested as indicators to measure economic security (UNDP, 1994). Most human security measures continue to be based on state-centric, macro-level statistical data (Owen, 2008; Werthes et al., 2011). Hence many of the current human security measures fail to take a genuinely people-centred approach. The present research aims to fill this yawning gap by taking a subjective approach to measuring human security. Examining how individuals and groups living within the explored context define human security, the level of importance they pertain to each of the securities and their perceived areas of security and insecurity.

Objective Measures of Human Security

Several objective human security measures using state-centric indices have been proposed, including the Generalized Poverty Index (King & Murray, 2001), The Human Security Index (Hastings, 2013), The Human (In)security Index (Werthes et al., 2011) and Spatial Mapping (Owen, 2008).

King and Murray (2001) introduced the Generalized Poverty Index, which predominately focused on the freedom from want pillar of human security (as outlined in the section above). This measure includes five state-centric indices of well-being that they suggest could be measured across all nations and populations: Quality of health scale, GNP per capita in international purchasing power, Freedom House measure of democracy, which examines political rights and freedoms, the fraction of adults able to participate in elections, and rate or average years of schooling. The Generalized Poverty Index adopted a relatively narrow view of the freedom from want pillar. It does not include indices examining community, environmental or food security which could be conceivably incorporated within this pillar (Atienza, 2015; Buchenrieder et al., 2017).

Individuals or groups are said to be in a position of generalised poverty if they drop beneath a predetermined threshold on any of the five indices (King & Murray, 2001). In other words, all five elements are essential to human security; if one is lacking, a person is in a state of insecurity. However, as this measure excludes the freedom from fear pillar of human security, King and Murray (2001) are effectively saying that freedom from violence is not essential to human security – a person can have a high level of human security (based on the five indicators included) while facing an increased risk of violence (Paris, 2001).

In comparison, perhaps the most well-known measure of human security, created by David Hastings (2013), has been applied to 232 countries and regions. It has been applied at both national and sub-national levels. The Human Security Index used the 1994 Human Development Reports conceptualisation of human security and the Human Development Index as its basis (Hastings, 2009; 2011; 2013). Hastings takes a broad approach, including 33 indicators across the seven security categories and both pillars of human security. The Human Security Index framework collects a wide range of raw data from existing indicators which is then compiled into three broad dimensions – economic, environmental, and social.

Werthes and colleagues (2011) take a similar approach in their Human (In)Security Index. They also closely match the concept of human security as outlined in the 1994 Human Development Report, categorising insecurities into six dimensions – personal (community security has been combined into this dimension as it correlated highly with personal security), economic, health, environmental, political and food security. However, they used fewer indicators than the Human Security Index above, with only two per dimension. A country is given a value from Level 1 (secure) to Level 4 (insecure) on each dimension and an overall human insecurity value. Assessing the threat by each security component allows for identifying specific areas of concern and, therefore, the ability to direct attention and priority to areas of insecurity. The total human insecurity value provides a picture of each country's overall human (in)security situation, allowing countries to be compared to identify those whose citizens' security is most severely threatened. This measure has been applied to 209 countries and regions.

While objective, state-centric measures, such as those presented above, are often perceived as systematic and comparative tools to evaluate and rank countries (Homolar, 2015), they have several limitations. Firstly, measures of this nature are often considered impervious to biases. However, the indicators included in such measures are often selected subjectively by the researcher, with little justification for why specific dimensions or indicators are chosen over others (Paris, 2001). Secondly, these indices often lack information about why a country may be low in human

security (Inglehart & Norris, 2012). They may be able to say that one country is less secure than another, but not what is causing this insecurity or what it means and entails.

Thirdly, they generally rely on readily available data sources collected for other purposes (Owen, 2008), which causes several concerns. This reliance on existing data sources constrains the indicators that can be included. Therefore, the aspects of human security a measure can examine and the countries the measure can compare. For example, Hastings (2013) acknowledged that the shortage of international and sub-national indicators assessing diversity limits their ability to find adequate data and therefore examine human security by gender, ethnicity, age, religion, and other groups in the Human Security Index (Hastings, 2013). In addition, reliance on global datasets means that these measures are unlikely to provide timely information on threats and vulnerabilities and, therefore, may not be able to identify any rapid deterioration in human security (Owen, 2008). Lastly, measures relying on readily available data sources often face aggregation and weighting issues. They attempt to combine several macro-level indices using different scales into an overall human security score (Inglehart & Norris, 2012). In conclusion, these limitations diminish the ability of state-centric, objective measures to provide accurate and timely human security information to effectively guide policymaking and agenda-setting (Inglehart & Norris, 2012).

Taylor Owen (2008) proposed a solution to the above limitations by focusing on a regional context-specific approach, explicitly using spatial analysis to isolate hotspots of human insecurity at a subnational level. Owen argued that introducing the notions of space and time into a broad multidimensional approach to measuring human (in)security would provide important policy-relevant information that could be accurately applied within the examined context. He thus used six of the 1994 Human Development Report security categories within this approach; community security was excluded as threats to this category were not deemed harmful enough to cross the threshold of insecurity.

Owen's spatial mapping approach has three stages. The first stage is identifying specific human security threats relevant to a region or country. Generally, this is achieved by interviewing regional experts within the six categories. To be counted as a threat to human security, a threat needs to be a risk to people's vital core and be critical and pervasive (see the section above for a discussion of the definition proposed by Owen, 2004; 2008; 2014). The second stage includes collecting data on the identified human security threats. Local experts (for example, researchers, NGOs, and government ministries) identify relevant indicators and collect data. All data must have a spatial dimension. Once data is collected, each threat is organised by spatial reference in a Geographic Information System (GIS). The final stage is to spatially map the data to determine

which areas suffer from the different threats. Threats may overlap, and certain areas may be vulnerable to multiple threats; these areas are then identified as hotspots.

This approach has been trialled in Cambodia (Owen, 2008). Sixty experts across the six security components were interviewed in Phnom Penh. Thirteen human security threats were identified from these interviews: Poverty, starvation, flooding, droughts, malaria, tuberculosis, dengue fever, HIV/AIDS, domestic violence, gun injuries, landmines, human rights violations, and village-level violence. Disciplinary experts within Cambodia were consulted to identify indicators that best measure these threats and collect spatially relevant data. These indicators were used to determine the regional level of risk for each threat (low, medium, or high). Maps were created for each threat, and regions with high risks were spatially highlighted. The maps were then overlaid to identify the areas with multiple high-risk concerns; these regions were deemed hotspots for human insecurity. This process resulted in maps highlighting the areas within Cambodia suffering from aggregated human insecurities. Such maps could then be provided to development practitioners within Cambodia to help identify and implement appropriate support.

While this approach is a step in the right direction, as it examines the local context, Owen (2008) still focused on collecting objective data rather than the perceptions of the individuals impacted by the threats. Perhaps the most salient critique of measuring human security using objective indicators is that they neglect the people-centric essence of human security (de Simone, 2020; Inglehart & Norris, 2012). They limit the understanding of human security, providing very little information on regional differences and differences between groups and individuals (de Simone, 2020; Martin & Kostovicova, 2014). Knowing that one country or region is more secure than another does not necessarily mean that all individuals or groups within a specific region or country feel the same level, or interrelated levels, of human security. In other words, vulnerabilities, threats, inequalities, and feelings of (in)security vary between individuals, groups, and communities (Inglehart & Norris, 2012).

An example of this can be seen when comparing human security in Aotearoa New Zealand, using an objective, national-level measure (Human (In)security Index) and a subjective, individual-level measure (Security Staircase scale). The Human (In)security Index (Werthes et al., 2011) deemed Aotearoa New Zealand to have the highest level of security in all six security categories and overall human security, implying that Aotearoa New Zealand as a whole has very little insecurity. In comparison, when examining subjective experiences of human security within Aotearoa New Zealand, using the Security Staircase scale (Carr et al., 2020) described in the next section, perceived levels of (in)security varied significantly between different ethnic groups and employment statuses. In addition, over half of the respondents reported that they did not feel they

had environmental (54%) or political (60.9%) security (Carr et al., 2020), indicating that measuring an individual's perceptions of (in)security is essential to understanding a more comprehensive picture of human security. In other words, individuals, groups, and communities can still feel at risk and vulnerable even in countries deemed to be prosperous and secure (Inglehart & Norris, 2012).

Subjective Measures of Human Security

Using people-centric measures to examine individuals and communities' perceptions of human security, acknowledge that not only are individuals and communities the beneficiaries of human security, but they are also active subjects in producing the meaning of human security (de Simone, 2020; Krause, 2014; Martin & Kostovicova, 2014). They give voice to the affected populations, acknowledging that individuals living daily with risks and threats are the "experts" (Atienza, 2015). This subjective knowledge is essential in understanding the complexity of a given situation and the ability to create and apply appropriate strategies to effectively respond to the identified threats (Gasper & Gomez, 2014).

To date, very few subjective measures of human security have been developed, with this area still in its infancy (Martin & Kostovicova, 2014). Subjective measures examining perceptions of human security include the sixth wave of the World Values Survey (Inglehart & Norris 2012), Human Security Index (Adger et al., 2021), Urban Residents Psychological Security scale (URPS; Wang et al., 2019), Draft Human Security Index (Atienza, 2015) and the Security Staircase scale (Carr et al., 2020)².

Perceptions of human security were examined within the sixth wave of the World Values Survey (Inglehart & Norris, 2012). The questions used to measure perceptions of human security fall within six of the seven security categories outlined by the 1994 Human Development Report: Personal, community, political, economic, health and food security. Public perceptions fell within three factors the authors labelled: Personal security, community security, and national security. The seventh wave of the World Values Survey has expanded the examination of human security perceptions by including additional items (World Values Survey, 2017); however, environmental security remains absent.

While the authors do not suggest using the battery of items from the World Values Survey as a standalone human security measure, it has been included within the given discussion as academics have incorporated these items into subsequent subjective human security research. For example,

²Human Development Reports have also incorporated people's perceptions of in(security). However, a discussion on this approach is outside the scope of this research as national and regional reports have constructed their own datasets and surveys. See Gomez et al. (2016) for a discussion of human security in Human Development Reports.

Abdel-Monem and colleagues (2020) used the personal and community security items from the World Values Survey to examine the human security perceptions of Islamic private school students, their parents, and teachers residing within the subnational conflict zone in Southern Thailand.

In addition, Adger et al. (2021) incorporated the lack of stable income, lack of food and exposure to crime and harassment items from the World Values Survey into their Human Security Index. The Human Security Index was created to examine migrants' perceptions of human security within urban, low-income regions; in this instance, it was applied to Chattogram, Bangladesh. The items were found to fall within three dimensions, termed environmental, economic, and social. When examining the items using the 1994 Human Development Report taxonomy, it can be argued that the items in the Human Security Index cover all seven security categories.

Wang et al. (2019) developed the Urban Residents Psychological Security scale, which has three dimensions, including psychological (e.g., interpersonal security), society (e.g., urban belongingness) and environmental (e.g., pollution), measuring the security of people living in urban China. While this is not a human security measure *per se*, it focuses on specific components of human security. The 20-items of this scale covers five of the seven security categories from the 1994 Human Development Report to some degree: Personal, community, economic, health and environmental security. Although this scale was created using data from China, the authors believe it can be applied to other contexts, including other developing countries with rapid economic growth, and developed countries with strict environmental stipulations.

Lastly, the Draft Human Security Index (Atienza, 2015) uses the seven human security categories identified by the 1994 Human Development report to devise items relevant to the Philippine context. This index used a comprehensive conceptualisation of human security covering both the freedom from fear and freedom from want pillars. The authors aimed to gather information on an individual's sense of security, perceptions of threats, and ability to alleviate or prevent threats to contribute to the planning and evaluation of policy.

While the measures utilised by Inglehart and Norris (2012), Abdel-Monem et al. (2020), and Wang et al. (2019) each measure human security to some degree, their examination of human security is limited. Their measures take a siloed approach, examining only certain aspects of security. As threats are interconnected and often affect more than one facet of security (UNDP, 1994), this approach runs the risk of presenting a partial, unbalanced picture of threats and the (in)security of individuals and communities. In comparison, Adger et al. (2021) and Atienza (2015) have incorporated items to measure all seven security components identified in the pivotal 1994 Human Development Report. However, both of these measures and the items selected have been

developed for a specific context, and therefore the scales would not easily translate to other countries, regions, or contexts.

As far as I can determine, only one measure takes a broad, reasonably comprehensive approach to measuring human security that can be applied to various contexts. The Security Staircase scale (Carr et al., 2020) can, in principle, be applied to a wide range of places, situations and times to measure how people perceive their human (in)security across multiple security facets.

Security Staircase Scale. The Security Staircase contains both core human security pillars – freedom from fear and freedom from want. Carr and colleagues (2020) incorporated the seven security categories proposed by the 1994 Human Development Report and two additional security components – cyber and national security. The Security Staircase scale examines nine interrelated types of subjective human security across three flights – Flight 1 (Proximal): Personal, health, food security; Flight 2 (Social): Cyber, community, economic, environmental security; and Flight 3 (Distal): Political, and national security. The authors recommended that future research includes a tenth security component – global security. Cyber and national security were described as below.

Cyber Security. A person has cyber security when their cyberspace (i.e., networks, servers, data, devices, and the users behind these devices) are protected from criminal and unauthorised access. Cyber security threats are wide-ranging, including cybercrime (e.g., hacking), unauthorised use of electronic data, online bullying, the presentation of misinformation, sex trafficking, and the illicit trade in arms and people.

National Security. National security is defined as feeling assured of the state's protection, territorial integrity, and position within international relations. Threats to national security include the construction of immigration as a threat, military threats, online radicalisation, threats to national borders and threats to public safety.

Carr and colleagues (2020) conducted their research in Aotearoa New Zealand. Respondents were asked to indicate, as a whole, whether they felt they had each security. A stepwise model was found, where proximal securities tended to be fulfilled before more distal ones, with participants beginning to question their security at the social flight. Differences in perceived human security were found between subgroups within ethnicity and employment status. The indigenous people of Aotearoa New Zealand – Māori reported lower levels of security compared to New Zealand European and “Other.” Within employment status, full-time employees and people in retirement reported significantly higher levels of security than the unemployed.

Carr and colleagues (2020) have provided a measure that can contribute to the human security debate and assist with addressing the criticisms of prioritisation and application of human security for policymakers, agencies, and academics. The Security Staircase scale has the potential to

be applied in a particular place or time, possibly following a specific event, to quantify human security needs across a wide range of security threats. The subjective nature of this measure is genuinely people-centred, as it examines what individuals and groups living in the particular context perceive as their areas of security or insecurity. The process and subsequent in-context results could guide and prioritise policy and direct resources within the given context.

Human Security and Happiness

Happiness and subjective well-being are particularly salient within the examined context, as much research has investigated well-being during the COVID-19 pandemic. Research has consistently shown that happiness leads to various benefits for individuals, their relationships, and society as a whole. In recent decades, human happiness has been proposed as a significant indicator of everyday well-being and development, replacing macro-level economic indicators like GDP.

The ninth annual World Happiness Report was released on the 20th of March 2021 (Helliwell et al., 2021a). This report focused on how people's quality of life had been impacted by COVID-19 and evaluated how governments worldwide responded to the pandemic. Happiness was examined using three subjective well-being measures: Overall life evaluation, positive emotions, and negative emotions. One is more eudaimonic, and the other two are hedonic. Overall, the participants from Aotearoa New Zealand had an average life satisfaction score of 7.26, a positive affect score of .85 and a negative affect score of .21 (World Happiness Report, 2021). The authors compared the results collected during COVID-19 to the previous 2017-2019 World Happiness Reports; Aotearoa New Zealand's overall life satisfaction had a non-significant slight decrease, positive emotions had a non-significant increase, while negative emotions increased significantly (Helliwell et al., 2021a).

To date, little research has examined the relationship between human security and happiness. Inglehart and Norris (2012) examined the relationship between the human security indicators within the sixth wave of the World Values Survey and two measures of well-being – happiness and life satisfaction. They found that the personal and community security dimensions predicted happiness and life satisfaction. Those reporting the lowest personal and community security levels reported the lowest levels of happiness. In comparison, those who felt secure in personal and community security were more likely to report high levels of happiness. Similar relationships were found for life satisfaction. Those with the highest personal and community insecurity were the least satisfied with their lives; as insecurity decreased, satisfaction with life increased. Perceptions of national security did not predict levels of happiness or life satisfaction.

This may be due to a sense of control; only those securities individuals felt they had some power over (personal and community security) impacted their perceptions of happiness and life

satisfaction. This is similar to what Carr and colleagues (2020) proposed with the Security Staircase scale. They visualised the nine securities as a staircase with interrelated, increasingly difficult steps. Those securities at the proximal flight (personal, food, and health) are more securable than those on the subsequent two flights, suggesting that individuals have more control over these types of securities. Those securities at the second flight (cyber, community, economic, and environmental) were considered more subjectively securable than the securities at the third, most distal flight (political and national), as people still had some control over the social aspects of their lives. Therefore, through applying a similar theory to the Inglehart and Norris (2012) findings, it is possible that those securities sitting at the national level were too distal for individuals to feel that they had a sense of control over them and therefore did not consider national security in relation to their every day, inherently subjective well-being, for example, overall life satisfaction.

The Present Research

The present research attempted to contribute to the current human security debates by conducting exploratory research examining how the 10 interrelated subjective securities, under the umbrella of human security, are perceived by individuals and groups dealing with everyday threats in Aotearoa New Zealand. Understanding the meaning and importance people attach to their security may inform theory and government policy to maximise social protection for people residing in Aotearoa New Zealand. The current study adopted a people-centred approach to security by focusing on how security is experienced in everyday life in response to calls from the UN to do so.

Aotearoa New Zealand COVID-19 Context

The World Health Organization (WHO; 2020) declared COVID-19 a global pandemic on the 11th of March 2020. COVID-19 continues to spread worldwide, with 220 countries and territories affected, 200,159,682 confirmed cases, and 4,257,068 deaths as of the 4th of August 2021 (Worldometer, 2021). Aotearoa New Zealand reported their first case of COVID-19 on the 28th of February 2020 (Ministry of Health, 2020). As of the 4th of August 2021, Aotearoa New Zealand, has had 2,521 confirmed cases, 99% of which have recovered (Ministry of Health, 2021).

Aotearoa New Zealand implemented a ‘go hard and go early’ strategy in an attempt to eradicate the infection, including the implementation of alert levels ranging from one through to four (see Appendix B for a summary of the alert levels), physical distancing, health and hygiene practices such as the wearing of masks, national and regional lockdowns, travel restrictions and increased surveillance through monitoring movement (Arden, 2020; 2020a; 2020b; Cumming, 2021). Appendix C provides a timeline of key dates concerning COVID-19 and the Aotearoa New Zealand Government’s response to the pandemic.

Aotearoa New Zealand is a bicultural society of Māori (tāngata whenua – indigenous people of Aotearoa New Zealand) and New Zealand Europeans (settlers). During the early days of the COVID-19 pandemic, Māori built on and surpassed the New Zealand government's actions by implementing local initiatives to help supply an additional layer of protection to communities (Te One & Clifford, 2021). Māori initiatives included creating roadside checkpoints at the entrance to towns with high Māori populations, allowing only residents to enter the communities (McMeeking & Savage, 2020; Severinsen et al., 2021; Te One & Clifford, 2021); organising and delivering food packages, hygiene packages, devices to enable online connectivity and grants for home heating to whānau and vulnerable members of the community; developing online tools, networks and channels distributing relevant information to support collective well-being and maintain whanaungatanga (the close connection between people, kinship; McMeeking & Savage, 2020; Te One & Clifford, 2021); and lastly keeping Māori language preschools closed at Alert Level 3, despite Government recommendations that early childhood programmes return to total capacity (Te One & Clifford, 2021).

The Government and Māori preventative strategies and Aotearoa New Zealand's isolated geographical location and low population density have contributed to Aotearoa New Zealand's success in remaining largely COVID-19-free (Cumming, 2021). At the time of data collection, Aotearoa New Zealand, was in the lowest 10 countries when examining deaths per capita (John Hopkins, 2021).

In addition, as of the 4th of August 2021, Aotearoa New Zealand, has performed relatively well on several measures examining the effects of COVID-19. It was ranked second out of 116 countries in its pandemic management on the Lowy Institute (2021) Covid Performance Index. Which compared countries based on the proportional number of confirmed cases, deaths and COVID-19 tests conducted.

The Bloomberg COVID Resilience Ranking took into consideration similar metrics, as well as information on vaccination, lockdown severity, community mobility, 2021 GDP growth forecast, universal healthcare coverage, vaccinated travel routes, flight capacity and the Human Development Index, to calculate a monthly ranking (Chang & Hong, 2020). Until August 2021, Aotearoa New Zealand was consistently ranked as one of the best three nations to reside during COVID-19 out of the 53 major economies examined (Hong et al., 2021).

Despite Aotearoa New Zealand performing well on international performance indicators, it is essential to note that not all people within Aotearoa New Zealand have had the same experience. Many of the measures implemented by the government – lockdowns, physical distancing, contact tracing – assumed that the Aotearoa New Zealand population had safe and secure homes with the

financial and social resources to comfortably purchase safety equipment and minimise supermarket visits (Blake, 2020). For those with precarious incomes, less luxurious housing, overcrowded housing, and no access to the internet, their experiences were likely to be quite different from the privileged (Blake, 2020; Elers et al., 2021; Mulgan, 2021; Munford, 2021).

Māori peoples, as *tāngata whenua*, continue to experience the effects of colonisation and are over-represented within less privileged groups. Including over-representation in the statistics for being victims of crime, disparities in employment and economic wealth, and residing in more deprived neighbourhoods (Barber et al., 2020; Ministry of Justice, 2020), unemployment rates more than twice that of New Zealand Europeans (Stats NZ, 2020) and a disproportionate number of physical and mental health issues (Blake, 2020; Ministry of Health, 2018). In many cases, the social, economic, and health inequalities present within Aotearoa New Zealand before the pandemic have been intensified by COVID-19 (Barber et al., 2020; Elers et al., 2021; Munford, 2021). Indicating that human security is not evenly distributed across diverse communities in Aotearoa New Zealand (Carr et al., 2020) and highlighting the need to examine perceptions of human security between different groups.

Research Aims and Questions

The present study expands on previous research by examining the meaning participants attribute to each of the 10 subjective securities, looking at whether participants have attained the securities they perceive as most important and exploring the relationship between perceptions of security and subjective well-being.

Firstly, the research explores the level, and types, of security participants feel they have attained. As human security is not evenly distributed within Aotearoa New Zealand (Carr et al., 2020), the research examines how different groups perceive human security. Detected differences will not be generalised to the Aotearoa New Zealand population. Instead, they will be presented as glimpses and will help guide future research recommendations.

Research Question One: At what level on the Security Staircase scale are New Zealanders beginning to feel insecure in the COVID-19 context? Does this differ between diverse groups within Aotearoa New Zealand?

This study aims to fill a gap Carr and colleagues (2020) identified in their research, namely exploring whether unattained securities are perceived as the most or least important securities by individuals. Incorporating a measure examining the importance of the securities and whether New Zealanders have attained the securities they perceive as most essential assists with understanding the value people pertain to each of the 10 securities within the given context and subsequently assists with the guidance and prioritisation of policies and responses to threats.

Research Question Two: Which areas of human security are most important to individuals within COVID-19 Aotearoa New Zealand, and have individuals attained the securities they deem most important?

In addition, the research aims to examine the relationship between the perceived level of human security and subjective well-being using the 2021 World Happiness Report (Helliwell et al., 2021a) measures. In line with the findings from the sixth wave of the World Values Survey (Inglehart & Norris, 2012), the study will examine the different flights of the Security Staircase scale (proximal, social, and distal) and how they relate to the subjective well-being measures to determine if those securities a person can more readily control (proximal and social) have a stronger relationship with happiness.

Research Question Three: What is the relationship between perceived human security and happiness within Aotearoa New Zealand during the COVID-19 pandemic?

Lastly, the exploratory research aims to qualitatively examine what each security item means to people residing within Aotearoa New Zealand, within the current context. These meanings will be compared to previous definitions of the security items proposed by the 1994 United Nations Development Report (UNDP, 1994) and Carr et al. (2020).

Research Question Four: What does human security mean to people within Aotearoa New Zealand during the COVID-19 pandemic?

Chapter 2: Method

Design

An exploratory approach has been chosen as very little research has examined people's perceptions of human security, the meaning and importance individuals attribute to various everyday securities, and how their perceptions of (in)security relate to their subjective well-being. In other words, the given research examines a relatively new area within a unique context using a newly proposed measure.

A cross-sectional survey design was adopted, measuring all variables concurrently at a single point in time. Both quantitative and qualitative techniques were used within the survey. Quantitative methods (closed-ended questions) were used to examine the level of security a person felt they had, rank the perceived importance of each security, and provide information on subjective well-being (research questions one, two, and three). A qualitative approach (open-ended questions) was used to explore the meaning of the 10 securities (research question four). Individuals described human security in their own words and played an active role in defining the 10 security dimensions within the given study. The data from each of these methods were combined within the interpretation stage.

Demographic Variables

The following demographic variables were included to explore whether diverse groups have different mean scale scores on the Security Staircase scale.

Age. Each participant was asked to select their age in years from a provided list. Those who chose "17 years or younger" were excluded as they did not meet the inclusion criteria. Due to the widespread ages and the small number of respondents within some age options, participants were grouped into age bands for data analysis. Five-year age gaps (e.g., 25-29 years) were used in all bands except in the youngest group, "18-24 years," and the oldest group, "65 years and older".

Ethnicity. Respondents were asked to select which ethnic group they primarily identify with from the standard Massey University ethnicity question response list (see the online survey in Appendix D). If a participant selected "Other," they were prompted to provide further information via free text. Other options were examined before data analysis to identify common responses; these were then created as separate groups for data analysis. European, Irish/British/Scottish, and Kiwi/New Zealander were identified.

Gender. Gender was measured using the options Male, Female and Gender diverse.

Geographical Region. As Aotearoa New Zealand has taken a regional approach to alert levels, participants were asked to indicate the region in which they reside from the most recent Census list (Stats NZ, 2018). In addition, a "I do not reside in Aotearoa New Zealand" option was

presented at the bottom of the list. Participants who selected this option were excluded as they did not meet the inclusion criteria.

Occupational Status. Participants were asked to select their current occupational status from a predefined list (see the online survey in Appendix D). They could select multiple options, for example, “Student” and “Employed casually.” The options “Student and employed” and “Retired and employed or studying” were created at the data analysis stage to account for the participants who selected multiple options. Selections made on the occupational status question and information provided to the job title question were compared for each respondent to identify any discrepancies. Values were updated for several participants; for example, some participants specified that they were students and working within the job title question but had only selected “Student” within the occupational status. The highest option was chosen for analysis in the few cases where a person chose two conflicting options, for example, “Unemployed” and “Employed full-time.”

Job Title. Respondents were asked to provide their job titles via a free text field.

Annual Personal Income. Participants were asked to indicate their estimated yearly personal income from the most recent Census income bands (Stats NZ, 2018a).

Number of People Residing in the Household. Respondents were asked to select the number of people who reside in their household from the options 1 through 10 or more.

Annual Household Income. Participants were asked to indicate their estimated annual household income using the Census income bands (Stats NZ, 2018a).

Participants

A sample of 525 participants was identified after the application of exclusion criteria. This was above the minimum required sample size for the chosen analyses. This convenience sample is not representative of the Aotearoa New Zealand population.

Demographically, the sample was comprised of 457 (87%) women, 58 (11%) men, 5 (1.0%) gender diverse, and 5 (1.0%) unknown. The mean age of participants was 46.87 years ($SD = 13.26$ years). Self-identified ethnicities included New Zealand European/Pākehā (380, 72.4%), New Zealand Māori (57, 10.9%), Pacific Islander (4, 0.8%), Asian (10, 1.9%), Irish/British/Scottish (17, 3.2%), European (9, 1.7%), Other (35, 6.7%), and Unknown (4, 0.8%). Interestingly, an additional nine (1.7%) individuals indicated that they were a “Kiwi” or “New Zealander” or identified as both Māori and Pākehā and were unable to choose one over the other. The “Other” category comprised a range of ethnicities, including American, Canadian, Sri Lankan, Puerto Rican, South African, Australian, Niuean European, Indian, and Eurasian.

Participants were located throughout Aotearoa New Zealand, 27 (5.1%) participants resided in Northland, 110 (21%) in Auckland, 78 (14.9%) Waikato, 32 (6.1%) Bay of Plenty, 13 (2.5%)

Gisborne, 20 (3.8%) Hawkes Bay, 37 (7.0%) Taranaki, 33 (6.3%) Manawatu-Whanganui, 21 (4.0%) Wellington, 20 (3.8%) Tasman, 19 (3.6%) Nelson, 13 (2.5%) Marlborough, 13 (2.5%) West Coast, 45 (8.6%) Canterbury, 26 (5.0%) Otago, 13 (2.5%) Southland, and 5 (1.0%) did not specify a location.

The self-identified occupational statuses reported were unemployed (51, 9.7%), student (27, 5.1%), student and employed (20, 3.8%), employed casually (22, 4.2%), employed part-time (91, 17.3%), employed full-time (214, 40.8%), retired (71, 13.5%), retired and employed or studying (5, 1.0%), and 24 (4.6%) people did not specify an occupational status. Table 1 demonstrates participants' self-identified personal income before tax and household income before tax. The number of people residing within the household ranged from 1 (just the respondent themselves) to 10 or more. The mean number of people living in a home was 3 ($SD = 1.57$).

Table 1

Participants by Census Income Band

Income band	Personal income before tax		Household income before tax	
	Frequency	Percent	Frequency	Percent
Loss	2	0.4%	2	0.4%
Zero income	30	5.7%	4	0.8%
\$1 - \$5,000	13	2.5%	2	0.4%
\$5,001 - \$10,000	17	3.2%	5	1.0%
\$10,001 - \$15,000	26	5.0%	8	1.5%
\$15,001 - \$20,000	31	5.9%	10	1.9%
\$20,001 - \$25,000	28	5.3%	21	4.0%
\$25,001 - \$30,000	39	7.4%	22	4.2%
\$30,001 - \$35,000	22	4.2%	8	1.5%
\$35,001 - \$40,000	29	5.5%	19	3.6%
\$40,001 - \$50,000	36	6.9%	25	4.8%
\$50,001 - \$60,000	44	8.4%	38	7.2%
\$60,001 - \$70,000	31	5.9%	24	4.6%
\$70,001 - \$100,000	71	13.5%	80	15.2%
\$100,001 - \$150,000	35	6.7%	87	16.6%
\$150,001 or more	19	3.6%	109	20.8%
Unknown	52	9.9%	61	11.6%

Compared to the Aotearoa New Zealand 2018 Census, the sample differed from the general population in several demographics (Stats NZ, 2020a). At that time, 48.6% of the general population identified as male and 51.4% as female, 70.2% of the population identified as New Zealand European/Pākehā, 16.5% as Māori, 15.1% as Asian, and 8.1% as Pacific Islander. The median age was 37.4 years (compared to 47 years in the current sample), and there was a 4% unemployment rate. These figures would suggest that the convenience sample was older when compared to the general population. It oversampled women, New Zealand European/Pākehā and the unemployed. It underrepresented men and diverse ethnic groups, including Māori, Asian and Pacific peoples. However, it is difficult to determine by how much the diverse ethnicities were underrepresented as the 2018 Census allowed multiple ethnicities to be selected.

Minimum Required Sample Size and Rationale

The required sample size, indicated by G*Power for a bivariate normal correlation analysis, was 112 participants (see Appendix D). Two-tailed was selected to examine both ends of the distribution. A medium effect size of .3 was specified (Cohen, 1988; 1992). The standard alpha level of .05 was used, and a power level of .9 was specified. Indicating that 112 participants were required within the given research to have a 90% chance of producing a significant finding in a two-tailed test if the true correlation between perceived human security and subjective well-being in the population was .3. It was determined that a period of four to six weeks would be sufficient to collect a sample of this size using the chosen procedure.

Measured Variables

Ten Securities under the Umbrella of Human Security

The current research examined 10 interrelated subjective forms of security under the category of human security: Personal, health, food, cyber, community, economic, environmental, political, national, and global security. The 1994 Human Development Report's definition of personal, health, food, community, economic, environmental, and political security and Carr and colleagues (2020) definition of cyber and national security were adopted.

Global security was explored as a separate security component, as per Carr and colleagues (2020) recommendation. By including global as a separate dimension of security within the Security Staircase scale, the current research examined whether a person felt secure within their borders (personal through to political) and whether they felt safe within the global context. This is particularly salient within the current COVID-19 context, as it is believed that unless we control the pandemic globally, a person cannot feel completely secure in their own country (Fukushima, 2020).

Global Security. Global security is defined as the other nine security categories that have become global in scale; they have a global reach or are felt by all, or nearly all, of the planet

(Western, 2016). Threats to global security include, but are not limited to, the migration crisis, depletion of earth and oceans, poverty and inequality, degradation of the environment, diseases, epidemics, and pandemics that in a global, interconnected world can spread with unprecedented speed (Gorbachev, 2020), pollution, famine, drug trafficking, terrorism (UNDP, 1994), climate change and human population growth (Saier & Trevors, 2010).

Meanings of Human Security Items. The meaning individuals attributed to each of the 10 interrelated subjective security categories were explored using open-ended questions, for example, “What does health security mean to you?”. Participants completed these questions using free text. There was no limit to the number of characters respondents could use; therefore, they could provide as little or as much information as they wished. The randomisation feature within Qualtrics (2022) was used to present the 10 questions in a random order across participants to help counteract order effects. Participants were prompted to answer any questions(s) they missed before moving on to the next page in the survey; they were able to continue without completing the item(s). Respondents were asked to use the meaning they attributed to each of the securities when answering the below security measures.

Levels and Attainment of Human Security. The level of human security and attained security components were measured using the Security Staircase scale (Carr et al., 2020). Participants were presented with the 10 security categories (personal, health, food, economic, cyber, community, environmental, political, national, and global security). They were asked to select whether or not they had each security (Yes or No). The order in which the 10 securities were presented was randomised across participants to prevent the order of securities from influencing participants' responses. Participants were prompted to answer any questions(s) they missed; however, they could continue without completing the item(s).

Respondents were asked to complete this scale for two different time periods; they were asked to indicate whether or not they currently had each security and whether or not they had each security prior to COVID-19 being identified in Aotearoa New Zealand (prior to the 28th of February 2021). Participants' number of Yesses on each of the time periods were summed to create an overall current human security score and a prior to COVID-19 human security score. Scores ranged between 0 and 10; a score of 0 indicated that a participant felt wholly insecure, and a score of 10 demonstrated complete security within the explored constructs. The percentage of participants who attained each of the 10 securities within the current time period was calculated.

Importance of Human Security Items. The perceived importance of the 10 security components was measured using an adapted version of the Security Staircase scale. Participants were asked to arrange the 10 security dimensions in order of importance to them. The item at the

top of the list was the most important and the item at the bottom the least important. The order in which the 10 securities were presented was randomised across participants to prevent order effects.

Happiness

Subjective well-being was defined as a person “experiencing a high level of positive affect, a low level of negative affect, and a high degree of satisfaction with one’s life” (Deci & Ryan, 2008, p. 1). It is subjective as a person evaluates their own well-being (Deci & Ryan, 2008). Throughout literature, the above conceptualisation of subjective well-being is often used interchangeably with the term happiness (Deci & Ryan, 2008); this will also be the case within the given thesis. The three components of subjective well-being outlined within the operational definition described by Deci and Ryan (2008) are explored using measures from the World Happiness Report 2021 (Helliwell et al., 2021a). The order of the below questions was randomised, and participants were prompted to complete any unanswered questions.

Life satisfaction was measured using the 2021 World Happiness Report’s version of the Cantril Self-Anchoring Striving scale (Helliwell et al., 2021a). Participants were asked to indicate on a 10-rung ladder their current life satisfaction. The top of the ladder (10) represented the best possible life, and the bottom of the ladder (0) represented the worst possible life.

Positive affect was measured using the positive emotion items from the World Happiness Report 2021 (Helliwell et al., 2021a). Respondents were asked whether they smiled a lot yesterday and experienced enjoyment during much of yesterday (Yes or No). No was coded as 0, and Yes was coded as 1. A positive affect score was created by calculating the mean of each participant’s responses to these items, with possible scores ranging from 0 to 1. A score of 0 indicated low positive affect, while a score of 1 indicated a high level of positive affect.

Negative affect was measured using the negative emotion items from the World Happiness Report 2021 (Helliwell et al., 2021a). Participants were asked whether they experienced specific negative emotions (Sadness, Anger, Worry) during a lot of the day yesterday (Yes or No). No was coded as 0, and Yes was coded as 1. A negative affect score was created by calculating the mean of each participant’s responses to these items; possible scores ranged from 0 to 1. A score of 0 indicated a low level of negative affect, and a score of 1 indicated a high level of negative affect.

Procedure

A consultation was carried out with two Māori faculty members within the School of Psychology at Massey University to identify and discuss cultural considerations. This meeting's advice and feedback were incorporated into the research design and ethics application submitted to the Massey University Human Ethics Committee on the 16th of April 2021. Provisional approval was granted on the 21st of May 2021. The requested changes were made, and the Massey University

Human Ethics Committee gave final ethics approval: Northern, Application NOR 21/30 on the 14th of July 2021 (see Appendix D). Following this, support was provided by the Massey University Information Technology Services department to configure the online survey and resources within Qualtrics, a cloud-based survey platform.

A pilot test was carried out with eight individuals to ensure that the survey resources were clear and concise and that the online survey was straightforward. The pilot sample was asked to read all resources and complete the survey as if they were participating in the research. The response time for this group ranged from 12 minutes to 17.77 minutes. Therefore, the expected time to complete the survey was amended from 25 minutes to 15-20 minutes in the information sheet.

Participants were recruited via social media, specifically Facebook, using a snowball sampling recruitment method. Only individuals 18-years and older residing in Aotearoa New Zealand were eligible to participate, as the given study makes inferences about the Aotearoa New Zealand adult population. Facebook was chosen to recruit participants as it is one of the most popular social media networks in Aotearoa New Zealand, with approximately three-quarters of the population being active users (Statista, 2021). Therefore, a snowball sampling approach using Facebook had the potential to reach a large pool of possible participants.

The author posted a short description of the research on their own Facebook page and a range of community Facebook pages throughout Aotearoa New Zealand, inviting people to participate. This post included a brief description of the research, inclusion criteria, information about the prize draw, a link to the information sheet and a request for people to share the post on their own Facebook page.

After reading the information sheet, people who chose to participate in the research were presented with links to support services information before completing the questionnaire. It is possible that asking participants to examine their own (in)security and well-being at any time, not least during a pandemic, may be psychologically distressing for some individuals. This information, along with links to the Unite Against COVID-19 website, were also included in the debriefing information.

At the end of the questionnaire, participants were directed to an independent survey. They could indicate if they would like to receive a summary of the research findings and enter the draw to win one of eight \$40.00 Farmers vouchers, to express gratitude and appreciation (koha) for the time and knowledge participants invested. Participants who chose to enter the prize draw and/or receive research findings were asked to provide an email address; these were stored in a separate file and could not be linked to their questionnaire responses. See Appendix D for all procedural resources.

Data Collection Period

Data collection commenced on the 4th of August 2021, and the survey remained open for six weeks. Two weeks into data collection, on the 17th of August 2021, Aotearoa New Zealand identified its first community case of COVID-19 in several months and immediately went into Alert Level 4 lockdown (Ardern & Bloomfield, 2021). On the 18th of August 2021, this person was confirmed as Aotearoa New Zealand's first case of the COVID-19 Delta variant (Ardern & Bloomfield, 2021a). Due to the uncertainty and distress the population of Aotearoa New Zealand were experiencing, the researcher decided to pause the active recruitment of participants for two weeks. The survey continued to be available via posts made before the 17th of August; however, no new posts on Facebook were made.

Active recruitment was recommenced on the 1st of September 2021, as lockdown restrictions lightened for many regions in Aotearoa New Zealand. Appendix C provides an outline of the alert level restrictions imposed. At the conclusion of data collection, on the 14th of September 2021, 970 cases of COVID-19 had been identified within the Delta outbreak, and all regions of Aotearoa New Zealand continued to have some level of restriction in place (Ardern & Bloomfield, 2021g).

Data Analysis

Data Exclusions

A total of 1465 respondents were recorded within Qualtrics. This group ranged from people who had clicked on the "Next" button within the information sheet to those who had completed the survey and read the debriefing information. It also included test responses made by the researcher. All unfinished attempts were excluded from analyses. A finished response was defined as a participant progressing 60%, or more, through the survey and reaching the demographic information section, which informed respondents that the information past this point was non-mandatory. Overall, 797 respondents exited the questionnaire before reaching this point and were excluded. Of the 668 respondents who finished the survey, 143 were excluded due to exclusion criteria, fraud and bot detection, and incomplete data (see Appendix D for a detailed description).

Quantitative Data Analyses

Research Question One. As per previous research, Guttman's minimization of error (Guttman, 1950) method was conducted to determine whether security is scaled from personal to global security (Carr et al., 2020). This method counts the minimum number of answers that must be altered for each participant to translate their responses into an unbroken string of Yesses followed by a consecutive sequence of Noes, progressing from personal to global security. The higher a participant's overall human security score, the higher up the Security Staircase they would have

ascended (Carr et al., 2020). This process was carried out using the current and prior to COVID-19 data periods. This approach was deemed appropriate for the Security Staircase scale as it includes 10 questions (above the required nine), and the responses were binary – Yes/No (Festinger, 1947). The marginal frequencies were investigated to identify if they were within the required range of .2 - .8 (Jobling & Snell, 1961).

Post-data collection, it was identified that the Rasch measurement model is a more appropriate method for assessing construct validity with ordinal data. Therefore, this was implemented to complement and build on the Guttman scale analyses. The Rasch measurement model holds that the rigid pattern of all correct responses followed by all incorrect responses expected by the Guttman scaling process is rarely observable in human behaviours (Bond et al., 2021). It is more plausible that the sequence will be more or less predictable; however, within a person's level of ability (where the answers change from Yes to No), there is likely to be some variation as it is expected that the participant will succeed on some items and fail on others (Bond et al., 2021).

Winsteps version 5.1.7 software (Linacre, 2021) was used to perform the Rasch analysis. The adequacy of the Security Staircase scale items was examined using the Dichotomous Rasch model (Rasch, 1960), as this measure used a Yes/No response scale. The Rasch model contains several measurement requirements that items measuring an underlying trait must adhere to (Bond et al., 2021). Firstly, the latent variable measured by the scale items, in this case, human security, must have a unidimensional structure to avoid measurement contamination (Bond et al., 2021; Fan & Bond, 2019; Heritage et al., 2018; Krägeloh et al., 2019). The unidimensional structure was estimated based on a principal components analysis of the Rasch model residuals (Bond et al., 2021; Heritage et al., 2018), contrasts with an eigenvalue coefficient greater than 2.0 were investigated further as this may suggest that there is a multidimensional structure (Bond et al., 2021; Linacre, 2012; Linacre, 2021).

Secondly, participant item responses should reflect a positive linear relationship between participant's ability and item difficulty on the Security Staircase scale (Bond et al., 2021; Heritage et al., 2018; Linacre, 2012a). Point-measure correlations between scored responses and ability measures were examined, and a noticeably positive correlation was expected for each item to support this requirement (Linacre, 2012a). Thirdly, each item is assumed to have local independence; participants' responses to any item should not be affected by their responses to other items within the same measure (Bond et al., 2021; Fan & Bond, 2019). The unstandardised residuals correlation matrix was examined for local dependence between the securities; a correlation of .4 or below is considered satisfactory as it indicates low dependency (Linacre, 2021).

Item fit was examined using Infit and Outfit mean-square coefficients; good fit is demonstrated by values close to 1.0, indicating that the unexplained variance in the data is the same size as the unexplained variance predicted by the Rasch model (Linacre, 2021). A mean-square value below 1.0 indicated overfit of the data to the model, and values above 1.0 indicated underfit (Linacre, 2021). Acceptable values fall between 0.5 and 2.0; any items with fit values outside this range were determined to be misfitting. This range was chosen as values below 0.5 are less productive for measurement, and values above 2.0 distort the measurement system (Linacre, 2021). The reliability of item ordering estimates was inferred based on real reliability, model reliability, and Cronbach's alpha (KR-20). Item reliability above .9, real and model item separation values above 3.0, and a Cronbach alpha above .7 were deemed acceptable (Linacre, 2021).

The Security Staircase scale scores were compared between diverse groups using the same approach as Carr and colleagues (2020) to examine construct validity using the known group's approach. A one-way between-groups analysis of variance (ANOVA) was carried out for each demographic variable using SPSS statistical software version 27. The current human security score was entered as the dependent variable. The Fisher's Protected Least Significant Difference test (Fisher's Protected LSD), and the more conservative Tukey's Honest Significance test (Tukey's HSD), examined any demographic variables identified as having statistically significant effects.

Research Question Two. Kendall's Coefficient of Concordance was conducted using SPSS version 27, to analyse the level of agreement between respondents on the importance of each of the 10 securities (Field, 2018; Howell, 2013). Kendall's coefficient ranges from 0 (no agreement) to 1 (complete agreement; Field, 2018).

An overall mean rank of importance score for each of the 10 securities was calculated across participants. This was plotted as a function of the percentage of participants who attained each of the 10 securities to explore whether those ranked as most important have been achieved.

Research Question Three. All statistical procedures examining research question three were conducted using SPSS version 27. Kendall's Tau Coefficient was used to examine the strength and direction of the relationship between the human security score and life satisfaction, positive affect, and negative affect scores. In addition, this statistical method was used to examine the relationship between the individual security scale items, life satisfaction, positive affect, and negative affect to see if there is a relationship between security proximity and subjective well-being. Kendall's Tau Coefficient was chosen as the current human security score is an ordinal variable. The Kendall's Tau Coefficient is the preferred approach to examining data of this nature as its standard error is known; therefore, it better estimates the corresponding population parameter compared with other models (for example, Spearman's Correlation Coefficient; Howell, 2013).

Bias-corrected and accelerated (BCa) bootstrapping with 2000 simulations was used to calculate robust confidence intervals.

Due to the larger than expected sample size, it was decided post data collection to conduct a forced entry multiple linear regression to explore whether current human security predicts perceived life satisfaction when controlling for positive affect, negative affect, and demographic variables. The researcher decided to explore life satisfaction, rather than positive affect or negative affect, as it had the strongest correlation with human security out of the well-being variables. Forced entry was chosen as the theoretical importance of each predictor was unknown. Therefore, this allowed each item to be assessed in terms of what it added to the prediction of life satisfaction, different from the predictability afforded by the other items (Tabachnick & Fidell, 2013). To include the gender variable within the multiple linear regression, two new dummy variables were created for those who responded “Male” or “Gender diverse” the “Female” response was used as the baseline group. Participants who did not respond to gender were excluded. Subjective life satisfaction was included as the outcome variable, and current human security, positive affect, negative affect, age, ethnicity, male, gender diverse, geographical region, occupational status, personal income (before tax), number of people residing in the household, and household income (before tax) were entered as predictor variables.

A second forced multiple linear regression was conducted to explore whether the individual current security scale items predict life satisfaction when controlling for the other well-being measures and demographic variables. Once again, perceived life satisfaction was included as the outcome variable. Each of the 10 current security items, positive affect, negative affect, age, male, gender diverse, ethnicity, geographical region, occupational status, personal income before tax, number of people residing in the household, and household income before tax were entered as predictor variables.

The statistical assumptions of multiple linear regression were investigated. A scatter plot of standardised residuals against standardised predicted values for life satisfaction was examined for linearity and homoscedasticity (Field, 2018). A histogram and normal probability plot of standardised residuals were inspected to determine the normal distribution of errors (Field, 2018). Data were examined for multicollinearity using a correlation matrix of predictor variables, the variance inflation factor (VIF), and tolerance statistics (Field, 2018). Lastly, as multiple linear regression does not assume a lack of outliers and data was checked for data entry errors, outliers have not been investigated or excluded (Stevens, 1984; Williams, 2013).

Additional Analyses. The detection of the Delta variant of COVID-19 within the Aotearoa New Zealand community two weeks into data collection presented a unique opportunity to examine

responses to the scales before detection ($n = 165$) and post-detection ($n = 360$). Independent samples t-test analyses were conducted to determine if scores varied between these groups on the current human security, life satisfaction, positive affect, and negative affect variables. There were no statistically significant results. Therefore, these analyses have not been included in the results section.

Qualitative Data Analyses – Research Question Four

Thematic analysis has been identified as an appropriate method for exploring the meaning of human security and the 10 securities under this umbrella, as it is an effective approach for detecting, analysing, and explaining broad patterns of meaning across a data set, including both similarities and differences (Braun & Clarke, 2006). It is a method that, when carried out correctly, can produce a comprehensive and complex narrative (Braun & Clarke, 2006). Given the required exploratory nature of the research, such an analytical strategy was considered necessary.

Due to the high volume of qualitative data collected across 525 participants and 10 security items, focusing on two security items was deemed imperative to enable a rich examination of these areas of (in)security and to keep qualitative data analyses bounded and manageable. A more in-depth focus is made on the two forms of security (personal and health) participants ranked as most important. These securities were thematically analysed using the six-stage process outlined by Braun and Clarke (2006). These six steps included 1) familiarising self with data, 2) generating initial codes, 3) generating initial themes, 4) reviewing the generated themes, 5) defining and naming the themes, and 6) reporting themes. Semantic themes were developed inductively, and prior categories were not used. The remaining eight securities were manually coded and then analysed via a wordle interpretation. The MonkeyLearn word cloud software was utilised for this process (MonkeyLearn, 2022).

Chapter 3: Results

Quantitative Data Analyses

Descriptive Statistics

The means and standard deviations for each human security variable (current and prior to COVID-19) and each well-being variable (life satisfaction, positive affect, and negative affect) are shown in Table 2. The current and prior to COVID-19 average scores indicated that the sample's perceived level of human security decreased during the COVID-19 pandemic. The negative affect measure had Cronbach's $\alpha = .65$. Cronbach's Alpha could not be calculated for the life satisfaction and positive affect measures as both had less than three items. The reliability of the Security Staircase scale is discussed in the research question two section.

Table 2

Means and Standard Deviations of Variables (n=525)

Variables	<i>M</i>	<i>SD</i>	Minimum	Maximum
Current human security	6.66	2.52	0	10
Prior to COVID-19 human security	7.34	2.41	0	10
Life satisfaction	6.76	1.94	0	10
Positive affect	.72	.39	0	1
Negative affect	.36	.35	0	1

Research Question One

Table 3 reports the marginal frequencies, ranging from .32 to .88; two securities within the current human security data and four within the prior to COVID-19 data were above the recommended .80 threshold, which may inflate the Guttman scale value. Marginal frequencies were used to order the items in terms of difficulty for each application of the Security Staircase scale. The item with the highest marginal frequency was determined to be the most accessible security to attain through to the item with the lowest marginal frequency, which was the most challenging item to attain. The order of securities differed between each application and differed from the initial Security Staircase scale research (Carr et al., 2020). Guttman's minimization of error (Guttman, 1950) method was used to calculate the reliability of these steps.

A coefficient reproducibility (CR) of .90 or greater is the standard threshold for a set of items to be considered scalable using the Guttman minimization of error method (McIver & Carmines, 2011). A score of this nature indicates that the observed error in reproduction is 10% or less of the total of responses. Scores between .85 and .90 are described as a quasi-Guttman scale

Table 3*Security Scale Items and Marginal Frequencies in Order of Attainment*

Security scale items	Yes	No
Current human security		
Personal security	86.3	13.7
Food security	81.9	18.1
Community security	77.1	22.9
National security	74.9	25.1
Political security	67.0	33.0
Cyber security	64.4	35.6
Economic security	64.0	36.0
Health security	63.6	36.4
Environmental security	54.3	45.7
Global security	32.8	67.2
Prior to COVID-19		
Personal security	88.2	11.8
Food security	87.8	12.2
National security	81.1	18.9
Community security	80.4	19.6
Economic security	78.1	21.9
Health security	76.8	23.2
Political security	71.6	28.4
Cyber security	70.9	29.1
Environmental security	55.0	45.0
Global security	44.6	55.4

(Carr et al., 2020). This means that the scale can be used to make theoretical predictions on variables other than individuals, for example, groups (Mokken, 1971). The CR for the minimization of error method was calculated to be .87 for current human security and .90 for prior to COVID-19 human security (see Table 4).

In line with Carr et al. (2020), the mean marginal reproducibility (MMR) and the coefficient of scalability (CS) were calculated. The MMR should be substantially less than the CR if the scale scores provide a better prediction of response patterns on the Security Staircase than marginal

Table 4*Guttman Scalogram Test Statistics*

Variables	Guttman CR	MMR	CS
Current human security	.87	.70	.58
Prior to COVID-19 human security	.90	.75	.59

Note. Abbreviations: CR = Coefficient of Reproducibility; MMR = Mean Marginal Reproducibility; CS = Coefficient of Scalability

frequencies alone (McIver & Carmines, 2011). The CS measures the scale's ability to predict item responses compared to predictions based on marginal frequencies and should be above .60 (Menzel, 1953). The MMR and CS values are presented in Table 4; the mean marginal reproducibility is acceptable as it is below the CR. However, the coefficient of scalability is slightly below the suggested .60 threshold, indicating that it is likely that the marginal frequencies above .80 inflated the coefficient of reproducibility.

The Rasch measurement model was applied to examine the construct validity of the Security Staircase scale. The Rasch measurement requirements were met for both applications of the Security Staircase scale. A principal component analysis of the model residuals confirmed a unidimensional factor structure for both current and prior to COVID-19. The largest group of residuals had an Eigenvalue < 2.0, which indicated that the scale is unlikely to show multidimensionality. Empirical variance explained by the Security Staircase scale is 32.4% for the current data and 33.4% for the prior to COVID-19 data. The estimated model variance is 32.3% and 33.3%, respectively, so the data slightly overfits the model (0.1%). Consistent strong positive relationships ($r > .47$) were found between score responses and ability on all items, as displayed in Table 5, indicating a linear relationship between security ability and responses on the Security Staircase scale. Lastly, low unstandardised residual correlations ($r < .26$) suggested local independency for all items.

Examination of Infit and Outfit mean-square estimates showed that all items were between 0.74 and 1.23, as displayed in Table 5, well within the selected cut-off range. All 10 items are considered appropriate for application within the Security Staircase scale. The Rasch model estimation suggests that respondents found the Security Staircase items generally easy to endorse based on the positive person-measure estimates (Current 6.7, Model SE = .08; Prior to COVID-19 7.3, Model SE = .08). Estimates of item reliability were well above the minimum thresholds (Current reliability = .99; separation real reliability estimate (real) = 8.42; separation model

Table 5

Item Measure, Fit Coefficients, and Point-Correlations for the Security Staircase Scale - Current and Prior to COVID-19

Security scale items	Logit Measure	Model SE	Infit Mnsq	Outfit Mnsq	Pt. r
Current human security					
Personal	-1.62	.15	0.94	0.90	.51
Food	-1.14	.14	0.94	0.88	.53
Community	-0.71	.13	0.96	1.00	.54
National	-0.52	.12	0.85	0.74	.60
Political	0.04	.11	0.99	1.05	.56
Cyber	0.22	.11	1.15	1.21	.50
Economic	0.25	.11	1.00	1.01	.56
Health	0.27	.11	0.99	1.04	.56
Environmental	0.86	.11	1.12	1.17	.53
Global	2.35	.13	0.96	0.99	.63
Prior to COVID-19					
Personal	-1.37	.16	1.04	1.12	.47
Food	-1.32	.16	0.97	0.85	.51
National	-0.55	.14	0.89	0.81	.58
Community	-0.48	.13	0.97	0.95	.55
Economic	-0.27	.13	0.91	0.90	.58
Health	-0.15	.13	0.95	0.99	.57
Political	0.26	.12	0.97	0.98	.59
Cyber	0.32	.12	1.18	1.23	.51
Environmental	1.42	.11	1.11	1.22	.57
Global	2.15	.12	0.94	0.94	.66

Note. Abbreviations: Logit Measure = item difficulty relative to the underlying factor. Mnsq = Mean-square estimate. Pt. *r* = Point-correlation with measure.

reliability estimate (model) = 8.51; Prior to COVID-19 reliability = .98; separation real = 7.68; separation model = 7.79). This indicates that the sample was large enough to precisely locate the items on the latent variable, providing support for a hierarchical model of human security. In

addition, the traditional test reliability measure, Cronbach's alpha, indicated that the Security Staircase scale had a good level of reliability (Current $\alpha = .76$; Prior to COVID-19 $\alpha = .77$).

The logit measure values in Table 5 show a relatively equal distribution of items above and below 0. Personal and food security are the easiest securities to accomplish, while environmental and global security are the hardest to achieve, consistent across current and prior to COVID-19. This indicates that these securities have the same hierarchical position across situations. The other security items have changed the order of difficulty between current and prior to COVID-19, supporting the idea that the Security Staircase scale is sensitive to socio-economic conditions. Within the COVID-19 context, an average human security score of 6.66 and the above hierarchical order suggest that New Zealanders within the examined sample felt less secure regarding economic, health, environmental and global security.

A one-way between-group analysis of variance (ANOVA) examined responses to the Security Staircase scale in different demographical groups. The total current human security score was entered as the dependent variable. Current human security scores did not differ by gender, geographical region or the number of people residing in a household. In line with Carr et al. (2020), there was a statistically significant trend for both self-reported ethnicity ($F_{7,513} = 2.45, p = .018$), and occupational status ($F_{8,516} = 2.05, p = .039$) to predict level of current human security in a conceptually appropriate manner. Which provides support for the construct validity of the scale through the known group's approach, where various groups are known to differ on a specific attribute (Crano & Brewer, 1973).

Post hoc tests were conducted to identify differences between specific groups. Fisher's Protected LSD identified a step upwards (in current human security score) from Māori ($M = 5.9, SD = 3.0$) to New Zealand European/Pākehā ($M = 6.9, SD = 2.4, LSD, p = .009$) and from Māori to Irish/British/Scottish ($M = 7.5, SD = 2.3, LSD, p = .021$). In addition, an upwards change was detected from Asian ($M = 5, SD = 2.7$) to New Zealand European/Pākehā ($p = .024$), Asian to Irish/British/Scottish ($p = .013$) and Asian to European ($M = 7.6, SD = 1.7, LSD, p = .027$). Following the process outlined in Carr et al. (2020), a Tukey's HSD test was then utilised; none of these relationships between self-identified ethnicities continued to be statistically significant using this more conservative post hoc test.

In terms of occupational status, a significant step up the Security Staircase was apparent amidst retired ($M = 7.3, SD = 2.4$) respondents when compared with unemployed ($M = 6.2, SD = 3.0, LSD, p = .024$), student ($M = 5.8, SD = 2.5, LSD, p = .011$) and those employed casually ($M = 6.0, SD = 2.6, LSD, p = .034$). An additional step up the staircase was detected for respondents who

were employed full-time ($M = 6.8$, $SD = 2.6$) when compared to students ($M = 5.8$, $SD = 2.5$, LSD, $p = .044$). None of these differences remained statistically significant when using Tukey's HSD.

In addition, the present research found that there was a statistically significant trend for age ($F_{10,514} = 2.87$, $p = .002$), personal income ($F_{15,457} = 2.05$, $p = .011$), and household income ($F_{15,548} = 1.69$, $p = .050$) to predict level of human security. Post hoc tests were conducted to identify differences between specific groups. Post hoc Tukey's HSD testing revealed significant differences between the following age bands, 45–49 years ($M = 5.7$, $SD = 3$) when compared to 50–54 years ($M = 7.3$, $SD = 2.1$, HSD, $p = .014$) and 45–49 years when compared to 65 years and older ($M = 7.3$, $SD = 2.4$, HSD, $p = .022$).

Post hoc Tukey's HSD testing revealed significant differences between current human security scores for respondents who reported a Loss ($M = 1.5$, $SD = 0.7$) and those who reported a personal income of \$70,001–\$100,000 ($M = 7.7$, $SD = 2.2$, HSD, $p = .047$). However, it is important to note that the loss personal income group only contained two participants. Lastly, when examining household income per annum (before tax) using the more conservative Tukey's HSD post hoc test, there were no statistically significant differences between the groups' current human security scores.

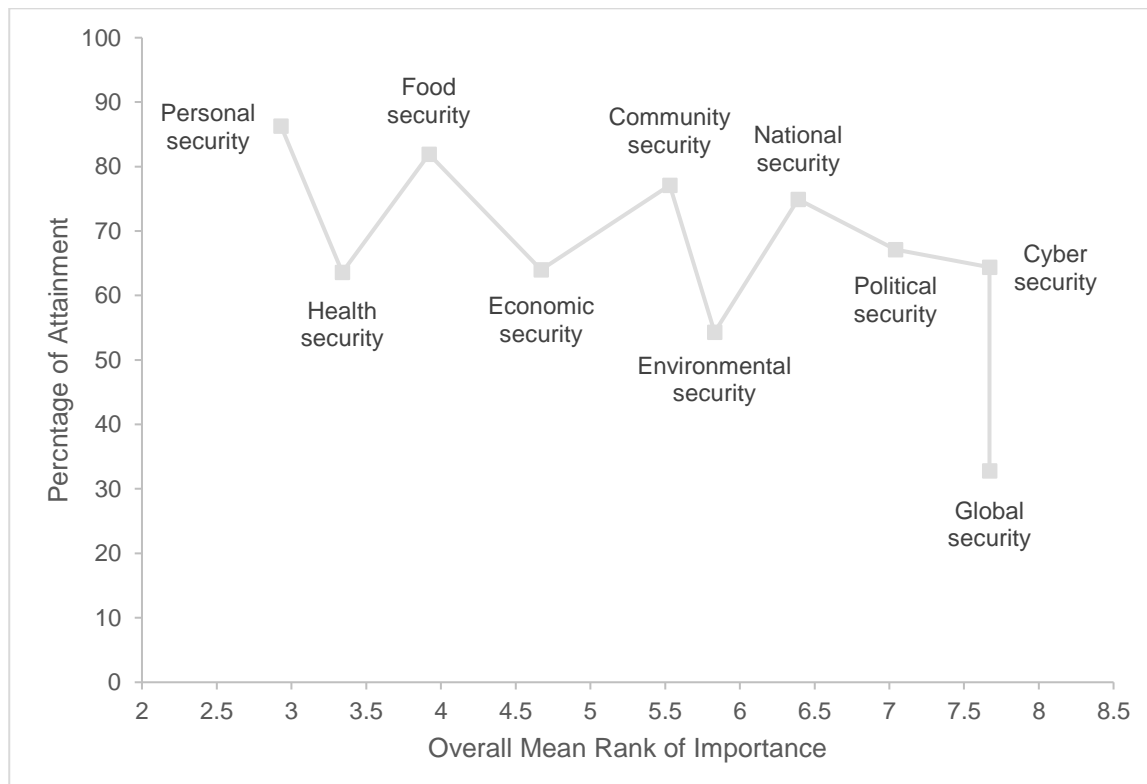
Research Question Two

Table 6 contains the mean rank for each security scale item. Mean ranking is frequently adopted to depict central tendencies in ordinal data (Howell, 2013). In the given research, a lower mean rank indicates a higher level of importance. Kendall's Coefficient of Concordance indicated a moderate and statistically significant level of agreement between respondents on the order of importance of the security scale items, $W = .329$, $p < .001$. The importance rankings followed the proximal-distal conceptual bands suggested by Carr et al. (2020), except for cyber security, which sat within social rather than distal in the initial conceptualisation.

Figure 2 plots each mean rank of importance as a function of the percentage of participants who reported attaining each security item. The percentage of attainment is plotted along the y-axis, and the values are displayed in Table 3 within the Current Yes column. Figure 2 demonstrates that personal security has been deemed the most important security item and has the highest percentage of attainment. Global security is the least important item and has the lowest percentage of attainment. In comparison, health security has been ranked as the second most important security item and ranked eighth in terms of actually having it, indicating that a relatively high portion of respondents have not attained the security they deem as the second most important. This is similar to economic security (ranked as the fourth most important security item and seventh in terms of attainment) and environmental security (ranked as the sixth most important security item and ninth in terms of attainment).

Table 6*Mean Ranking for each Security Scale Item in Order of Importance*

Security scale item	Mean rank
Proximal securities	
Personal security	2.93
Health security	3.34
Food security	3.92
Social securities	
Economic security	4.67
Community security	5.53
Environmental security	5.83
Distal securities	
National security	6.39
Political security	7.04
Cyber security	7.67
Global security	7.67

Figure 2*Mean Rank Importance as a Function of Attainment*

Research Question Three

Current human security was positively correlated with both life satisfaction and positive affect. Both correlations were small but significant, $\tau = .24$, 95% BCa CI [.18, .31], $p < .001$ and $\tau = .13$, BCa CI [.05, .20], $p < .001$, respectively. Indicating that human security and life satisfaction scores increased in the same direction; as scores increased on one scale, they increased on the other. The same relationship was found between human security and positive affect. Human security was negatively correlated with negative affect; the correlation was small but significant $\tau = -.16$, BCa CI [-.23, -.09], $p < .001$. As scores increased on one scale (e.g., current human security), they tended to decrease on the other scale (e.g., negative affect). The confidence intervals of all three correlations did not include zero between their lower and upper bounds, providing further statistical support for these relationships. The relationship between well-being and overall human security provided tentative evidence of convergent validity. Human security, measured using the Security Staircase scale, had a relationship with life satisfaction, positive affect and negative affect in the direction expected (Crano & Brewer, 1973).

The multiple linear regression analysed the data for 455 participants; those who had missed items on any demographic variables were not included. Regression coefficients between the current human security score, positive affect, negative affect, demographic variables, and life satisfaction are reported in Table 7. The linear regression model suggests that human security, positive affect, negative affect, and household income (before tax) each make a significant contribution to predicting life satisfaction when holding all other variables constant. Specifically, the model predicts that life satisfaction increases approximately 0.144 points for every one-point increase in current human security score, 1.018 for every one-point increase in positive affect, and 0.112 for each income band increase in household income. For every one-point increase in negative affect, life satisfaction decreased by 1.435 points. Once again, the confidence intervals for each of these regression coefficients do not include zero, providing further statistical support for these findings.

Thirty-five-point-one per cent of the variation in perceived life satisfaction is explained by variation in the predictor variables. This suggests that other variables not included in this study may have considerable influence. Current human security accounts for 10.8% of the variance, positive affect and negative affect for 18.9%, and demographic variables account for 5.4%.

Table 7*Linear Model of Predictors of Life Satisfaction (n=455)*

Variables	<i>b</i>	<i>SE B</i>	<i>p</i>	95% CI for B	
				Lower	Upper
Constant	3.634	0.523	.000	2.606	4.662
Current human security	0.144	0.013	.000	0.084	0.205
Positive affect	1.018	0.200	.000	0.624	1.412
Negative affect	-1.435	0.235	.000	-1.897	-0.973
Age	0.053	0.031	.093	-0.009	0.115
Ethnicity	0.005	0.045	.911	-0.083	0.930
Female vs. male	0.433	0.238	.069	-0.035	0.901
Female vs. gender diverse	-0.856	0.795	.282	-2.419	0.707
Geographical region	0.013	0.016	.407	-0.018	0.044
Occupational status	0.063	0.048	.189	-0.031	0.157
Personal income (before tax)	-0.004	0.024	.882	-0.050	0.043
Number of people residing in household	-0.061	0.056	.273	-0.171	0.048
Household income (before tax)	0.112	0.028	.000	0.057	0.167

Note. $R^2 = .351$

Table 8 indicates that all securities, except cyber security, had a statistically significant relationship with life satisfaction. Personal, health, food, and economic (more proximal securities) had the strongest relationship. A proximal-distal relationship was also found with negative and positive affect. Securities rated as more important and presenting at the proximal and social level of the Security Staircase (personal, health, food, economic and community) had a statistically significant positive relationship with positive affect. A similar pattern was exhibited with negative affect, with the scale items rated as the seven most important securities having a statistically significant relationship with negative affect.

Table 8

Correlations of Current Security Staircase Scale Items with Well-Being Variables, Presented in Order of Ranked Importance (Confidence Intervals based on 2000 Bootstrap Samples)

Variables	Life satisfaction	Positive affect	Negative affect
Proximal securities			
Personal	.23** [.15, .31]	.20** [.11, .30]	-.16** [-.24, -.09]
Health	.23** [.16, .30]	.14** [.06, .23]	-.16** [-.24, -.09]
Food	.23** [.15, .30]	.18** [.09, .27]	-.15** [-.22, -.07]
Social securities			
Economic	.29** [.23, .36]	.17** [.08, .25]	-.18** [-.26, -.10]
Community	.12** [.04, .20]	.14** [.06, .23]	-.11** [-.19, -.03]
Environmental	.13** [.05, .20]	.08 [-.01, .18]	-.14** [-.21, -.06]
Distal securities			
National	.14** [.07, .22.]	-.01 [-.09, .08]	-.09* [-.17, -.01]
Political	.11** [.03, .19]	-.03 [-.11, .06]	-.05 [.13, .04]
Cyber	.01 [-.07, .08]	-.03 [-.12, .05]	.03 [-.04, .11]
Global	.13** [.05, .20]	.07 [-.01, .16]	-.05 [-.12, .03]

Note: * $p < .01$, ** $p < .001$. BCa bootstrap CIs reported in brackets.

Table 9 displays the regression coefficients for each of the current Security Staircase scale items, positive affect, negative affect, demographic variables, and life satisfaction. The linear regression model suggests that current personal security, current health security, current economic security, positive affect, negative affect, and household income (before tax) each significantly contributes to predicting life satisfaction when holding all other variables constant. Specifically, the model predicts that a participant who answers ‘Yes’ on the personal security item will have a life satisfaction score approximately 0.619 points higher than a participant who answers ‘No’ when all other variables are held constant. A participant who answers ‘Yes’ on health security will have a life satisfaction score approximately 0.455 points higher than a participant who answers ‘No’, and a

Table 9*Linear Model of Predictors of Life Satisfaction (n=454)*

Variables	<i>b</i>	<i>SE B</i>	<i>p</i>
Constant	3.602	0.532	.000
Personal security	0.619	0.256	.016
Health security	0.455	0.172	.008
Food security	0.362	0.226	.110
Economic security	0.363	0.181	.045
Community security	-0.306	0.214	.153
Environmental security	0.089	0.162	.584
National security	0.099	0.218	.651
Political security	0.076	0.192	.694
Cyber security	-0.163	0.170	.340
Global security	0.050	0.177	.779
Positive affect	0.896	0.206	.000
Negative affect	-1.367	0.235	.000
Age	0.042	0.033	.193
Ethnicity	-0.002	0.045	.971
Male vs. female	.390	0.239	.103
Gender diverse vs. female	-.658	0.794	.408
Geographical region	0.015	0.016	.352
Occupational status	0.067	0.048	.165
Personal income (before tax)	-0.001	0.024	.954
Number of people residing in household	-0.045	0.056	.417
Household income (before tax)	0.100	0.028	.000

Note. $R^2 = .375$

participant who answers ‘Yes’ on economic security will have a life satisfaction score of approximately 0.363 points higher than a participant who answers ‘No’. Life satisfaction increases by approximately 0.896 for every one-point increase in positive affect and 0.100 for each household income band increase. Lastly, for every one-point increase in negative affect, life satisfaction decreases by 1.367 points.

Thirty-seven-point-five per cent of the variation in perceived life satisfaction is explained by variation in the predictor variables. This indicates that other variables not included in this study may have considerable influence.

The regression model assumptions were reviewed and met. Figure 3 demonstrates that the assumption of linearity has been achieved. However, the plot shows heteroscedasticity; the residuals are more widely dispersed for lower predicted scores. Nonetheless, as the sample size is relatively large and only uses one group of data, the violation of this assumption can be ignored and does not require adjustment to correct (Field, 2018). Both Figure 4 and Figure 5 demonstrate that the normal distribution of errors assumption has been met. The histogram is normally distributed, and data points fall close to the ideal diagonal line within the probability plot.

Lastly, multicollinearity is unlikely as the predictors had low to moderate correlations, with the highest being $\tau = .47, p < .001$. Using Spearman's Correlation Coefficient, a less conservative correlation method for ordinal and continuous data, the highest correlation is $r_s = .58, p < .001$. In addition, the VIF values for both regressions were well below 10 and tolerance values were well above 0.1 (Field, 2018).

Figure 3

Scatter Plot of Standardised Residuals against Standardised Predicted Values for Dependent Variable Life Satisfaction

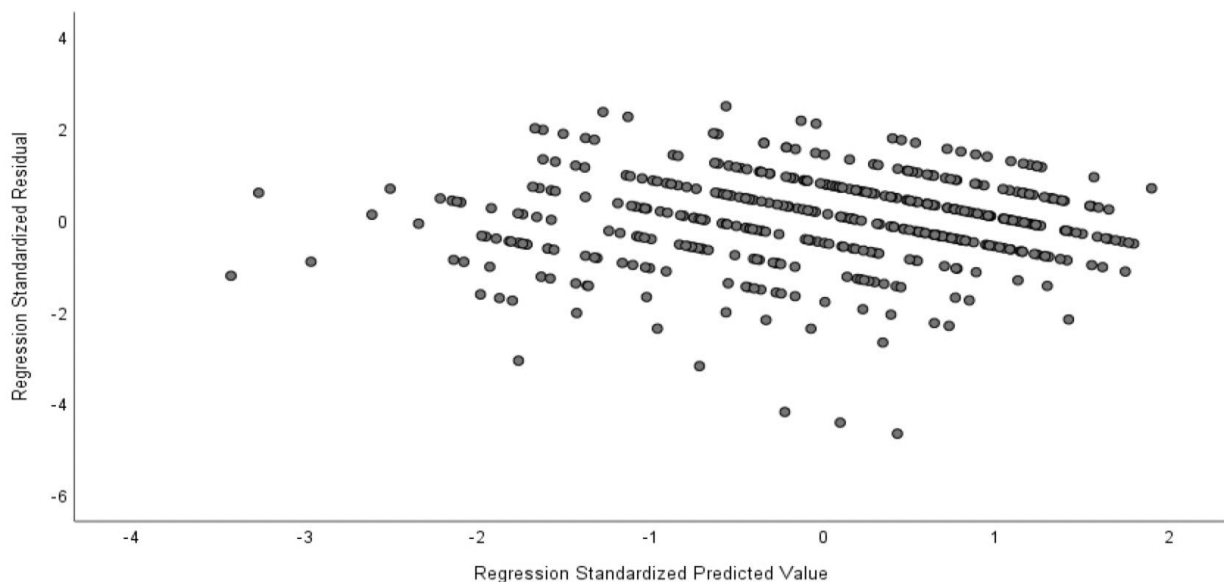
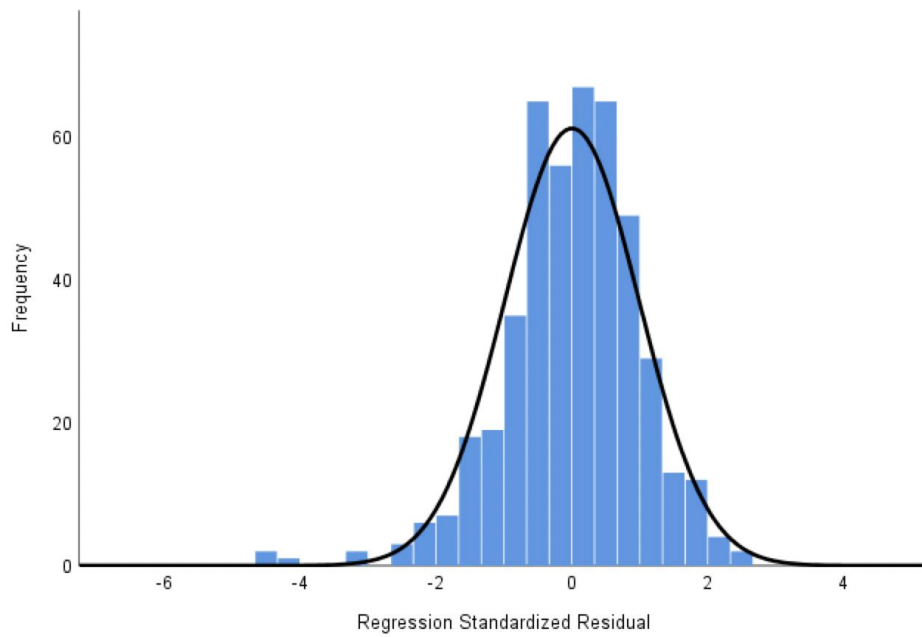
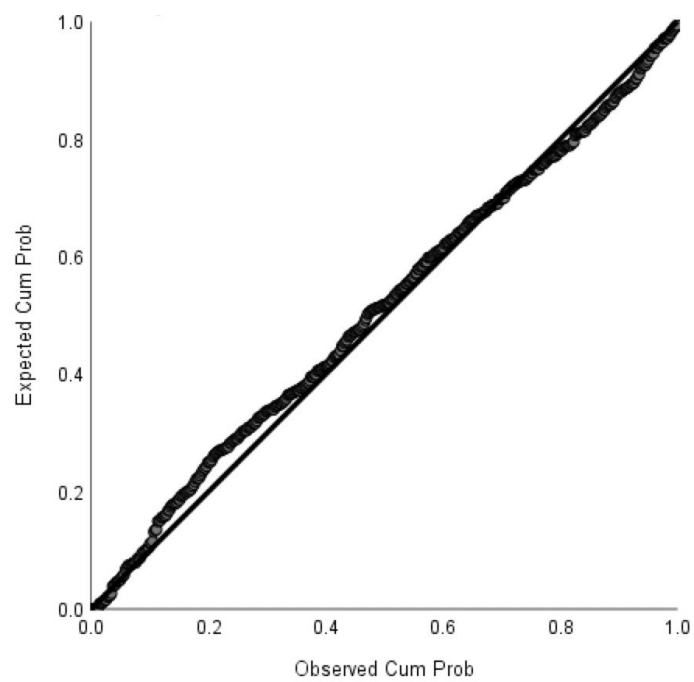


Figure 4

Histogram of Standardised Residuals for Dependent Variable Life Satisfaction

**Figure 5**

Normal Probability Plot of Standardised Residuals for Dependent Variable Life Satisfaction



Qualitative Data Analyses – Research Question Four

To keep qualitative data analyses bounded and manageable, a more in-depth focus is made on personal and health security, as participants ranked these as the most important security items. Braun and Clarke's (2006) six-stage thematic analysis process was adopted to examine personal and health security. The remaining eight securities were coded and analysed via a Wordle interpretation (MonkeyLearn), attached as Appendix E. A brief description of each of these eight securities is presented below. Securities will be discussed in order of importance rankings. A brief comparison between the 10 descriptions outlined in the current research and previous definitions offered by the 1994 Human Development Report (UNDP, 1994) and Carr et al. (2020) will be summarised.

Throughout coding, themes were identified across all 10 securities, demonstrating the interrelated nature of the human security items. The key cross-cutting themes identified were access to human rights and COVID-19 as a threat to security. These will be discussed following the description of the 10 securities.

Personal Security

Three overarching and interrelated themes were identified within personal security – 1) safety from harm, 2) stability and access to resources, and 3) existential security.

Safety from Harm. Most participants identified safety from harm as a critical aspect of attaining personal security. When discussing safety from harm, participants distinguished between being safe from harm and feeling safe from harm. Being safe was specific to a person being free from threats, danger, risk, and harm within their everyday life; one participant described it as *“being safe in my daily life, be that at home, at work, while driving the car or participating in pastimes.”*

Whereas feeling safe was discussed as a broader notion, it went beyond an actual act happening to a person to fearing or anticipating that something may occur as they go about their daily lives; one respondent expressed it as *“feeling free from fear to go about my daily routines. For example, personal safety to go for a walk alone... My freedoms are curtailed by fear.”* The absence of fear and subsequently feeling of safety was characterised as feeling at ease, comfortable and relaxed within their surroundings, *“the ability to feel relaxed and at ease wherever I am without threat of anything occurring.”*

Personal security was described as situationally dependent. Specific locations and environments were mentioned by participants as places in which they would expect to feel safe and be safe to attain personal security. Many discussed personal security in the context of going about their everyday lives, including being safe and feeling safe within their own home, walking down the street, shopping, working, going to school, driving, while online etc. For example, *“I am safe in my own home, I am safe when I am at work, I am safe when I leave my home.”* Participants discussed

both time and gender as factors that may impact a person's ability to be and feel safe from harm. Emphasis was placed on feeling and being safe at night, for example, *"that I am safe in my home and when out especially at night,"* suggesting that night may be perceived as a time that has increased threats, danger, and risk. Gender may also be caught up in perceptions of personal safety, with comments like: *"keeping myself physically safe, probably mentally too but I think about my physical safety first, particularly as a woman."*

Safety from harm also extended to personal belongings (e.g., home and car), the safety of personal information *"personal security is about protection of my physical self as well as my property and personal information"*, and loved ones, specifically friends, children, and family, *"that myself and family are safe in our home and our surroundings that we have in our daily lives e.g., school going to the supermarket."* This may suggest that their loved ones are an extension of themselves for many participants. To feel personally secure, it is essential that those closest to the individual also feel safe.

For many participants, safety from harm was extended beyond physical security, impacting a person's body (e.g., violence, sexual, self-harm, domestic), to include a range of threats – psychological, mental, health, financial, emotional and, in some cases, spiritual harm. One respondent described personal security as *"feeling safe... physically, emotionally, mentally, and even in some respects financially, and also for my family and friends."* Some participants included COVID-19 when discussing personal security threats, such as *"being safe from harm, physically and emotionally and safe from Covid."*

Things that may cause an individual harm or a feeling of fear were divided into internal and external threats. Internal threats were described as those that originated from within the person themselves, for example, negative thoughts or desire to self-harm. These were predominately discussed concerning the notion of feeling safe, *"personal security to me, means to feel safe and protected within myself and my own thoughts. To know I will be okay if I am on my own."* In comparison, external threats were described as threats originating from outside the individual, *"I feel safe OUT of myself. For example: I feel safe in my immediate surroundings- my home, the people I live with and my neighbours. I feel safe to be inside and outside on my property."* Respondents' external threats included other people, crime, COVID-19, and natural disasters. Several participants mentioned other people as an external threat that impacted their ability to be and feel safe from harm, with comments like: *"[personal security is] that I do not have fear of loss of my house/things or physical attack by another person."* Being the victim of crime perpetuated by others was discussed as a threat that lay within this broader aspect of other people as a threat, *"that I*

personally feel safe at all times around family, friends and people in my community. It covers family violence and abuse and being the victim of random crimes etc.”

Many participants expressed that they are personally responsible for keeping themselves and their loved ones safe from harm and subsequently limiting the likelihood of becoming a victim of crime, “[*it is*] *my responsibility that I look after my own security. Utilise all the safety measures that are in place. Be sensible.*” Participants identified a wide range of strategies to keep themselves, their belongings, personal information, and loved ones safe from internal and external threats. The internal strategies discussed were implementing self-care routines and keeping on top of negative thoughts, “*knowing yourself, keeping on top of negative or destructive thinking patterns.*” External strategies were much more varied and extensive, “*ranging from good security system in my home to having strong passwords on my personal equipment, this is something I am constantly reviewing in my day to day life.*” Specifically, participants outlined the following external strategies for keeping themselves safe from harm – learning self-defence, having alarms on your person, home or car, passwords on devices, locking home and car, gates, cameras and guard dogs, not putting self in risky situations, being aware of surroundings, not walking alone at night and if out at night keeping in well-lit areas, having insurance, driving a safe vehicle, carrying a personal weapon such as pepper spray or a gun, and not sharing personal or financial information with strangers. The COVID-19 context in which this research was conducted was explicitly referred to, with a couple of participants outlining strategies to keep themselves safe from COVID-19 – “*keep appropriate distance. Be sensible. Wash hands after many activities. Wear good face masks.*” It was acknowledged that there were times a person may not be able to keep themselves safe. In these situations, access to responsive emergency services was discussed as providing an additional layer of security, “*that I need to take personal responsibility for my own welfare but if I were unsafe then I should have someone like the police or St Johns depending on the circumstances to call on for help.*”

Financial Stability and Access to Resources. Having adequate economic means and access to fundamental human rights or necessities were outlined as valuable aspects of personal security. The notions discussed by participants within this theme are strongly related to those discussed within the economic security item. Participants maintained that having enough money was necessary for several reasons. Namely, it alleviated the stress of making ends meet; participants talked about being able to “*afford to live without stressing about how to pay my bills*”, allowing a comfortable standard of living, and “*having enough money to live at the standard you want to live at*”, as well as freedom of choice “*personal security is also having finances which afford my family & I choices and options*”, and financial independence “*having enough money and the means to take*

care of oneself and one's family." Financial stability was further discussed concerning the future; to be truly stable, a person requires the resources to live beyond the day-to-day, including the ability to save for their retirement, which *"means my personal means are reliable, secure to survive day today and in the future."*

Having enough money was also discussed as a necessary aspect of accessing fundamental human rights such as shelter, food, water, education, warmth, medical care, employment and clothing for self and family. To illustrate this, one participant described personal security as *"financial stability enough for emergency situations, warm home for my whānau, food to feed my whānau, clothing to keep us dry and warm, reliable transport to get my whānau to school and work, and heating during the winter months."* Discussions around shelter ranged from simply having a place to live through to a person owning their home. Moving up this continuum appeared to provide additional security. At the most basic level, respondents expressed the need to have shelter as *"being secure means having a roof over my head with some idea that it's going to stay there."* Progressing on to having a healthy home in which to reside meant for some participants *"that I have a solid roof over my head. A healthy house that won't make me sick."* On the next level, participants discussed having a home for the long-term, *"financially able to live, and having somewhere stable and long term to live."* Lastly, some participants outlined that they needed to own their own home to feel truly financially stable, talking about the importance of *"owning a house so feel secure and no risk of having to move on."*

Enough money and financial stability are gained by having a stable income at an appropriate level. For example, one participant noted, *"I have an income that is enough to feed, house and clothe myself and my children."* The majority of participants maintained that they gain this income by having stable employment, *"being in a stable...job and being able to manage financially."* A few participants disclosed that they were receiving government-funded assistance. They stated that this was not at an appropriate level and was difficult to attain, leading them to feel financially unstable, *"I had a brain stem stroke and my husband dumped me. I can't work and I'm at the mercy of WINZ, who have been absolute c@*\$s! I was even told how much I was going to really struggle. I don't feel I have any personal security at all."*

Having a solid support network to provide financial and psychological support in times of need was another resource that helped provide stability and security by *"having trustworthy relationships to turn to and fall back on in times of need."* This support network can take many forms; some participants discussed their friends and family being there when they needed *"having a strong network of friends and family I can rely on,"* others talked about being a member of a community group, for example, *"having a church family,"* and others extended this to government

financial support in times of need *“that I have a roof over my head that I can provide for my family. And that I can count on my...government to help should I need it.”*

Existential Security. For some participants, personal security went deeper than being safe from harm and stability; it was explained in regards to the core of the individual themselves, knowing who they are, accepting themselves, being able to express themselves, being accepted and loved by others, and having the freedom to make their own decisions. These critical aspects of existential security can be divided into two key components, self-identity and acceptance of self, and expression of this identity and subsequent acceptance by others. Self-identity and acceptance of self were made up at a base level of knowing self; one participant described it as *“knowing who I am, where I stand, to whom I belong and where I come from.”* For some participants, a key component of knowing oneself was built on having a connection to their culture *“it means I have access to my language and culture and those practices of my tupuna that provide me with a sense of connection to my past.”*

Building on this was the idea that personal security is internally accepting who you are and your identity. One participant described this as *“feeling good about myself and feeling happy with my actions.”* Some participants took this a step further and discussed the importance of not only accepting their own identity but being able to express their identity and be valued and accepted by others, *“I am capable of expressing my self and my identity with the comfort that I am still valued as a human.”* This links to the safety from harm theme, specific to self-identity. Some participants maintained that an essential aspect of personal security is to be safe from discrimination, harassment, persecution, and violence due to being self or expressing how they feel, with comments like: *“feeling safe in my body, in my home, in my work and in my community to express how I really feel and not be attacked whether verbally or physically for the way I look or the way I think.”* For some, being accepted was extended to feeling loved for who they are, *“that I am wanted loved and needed.”*

While being able to express oneself and having freedom of speech were identified as essential notions in expressing identity to others, participants specified that people should only utilise these rights if they are within the law and are not hurting others, for example, *“the right to have a voice, to live as I choose without impacting on others rights.”* Participants who discussed the importance of self-determination described this same idea of ensuring others are not impacted. That is, it is vital to be able to freely choose how to live their life in line with their identity, beliefs, and culture; however, there is a limit; these choices must not negatively impact others or go outside the law; participants discussed *“being free to do what I choose as long as it doesn't negatively impact others.”*

Health Security

Two overarching themes were identified within health security, 1) taking a preventative approach to minimise the risk of becoming unwell, and 2) attaining healthcare once unwell or injured.

Preventative Approach. Many participants maintained that a preventative approach to healthcare is essential. This was discussed concerning people taking personal responsibility to keep themselves and their families healthy and having more funding and education directed towards preventative healthcare. Therefore, two sub-themes were identified and are discussed below – preventative strategies and preventative healthcare.

Preventative Strategies. Participants identified a range of strategies that could be implemented to maintain good physical and mental health for themselves and their families. These strategies included exercise, eating nutritious food, sleeping, supplements, a safe, clean environment, and adequate housing. To illustrate this, one participant described health security as *“access to and ability to afford preventative health measures; warm home, good food, ability to exercise, etc.”* In many instances, participants felt responsible for maintaining their health and the health of family members *“that I am able to care for myself in ways that promote my own health and the health of my family (e.g., getting enough sleep, getting enough to eat.”* This notion of maintaining their own, and their family’s health, had a future component; it was often talked about as a way to stay healthy for the long-term, *“health security is about having excellent physical health as well as mental health. I work at this every day to ensure I can live a long life.”*

Personal preventative strategies were also discussed in the current COVID-19 context, such as *“doing what's right, wash hands, sneeze into elbow. Sanitise. Wear a mask when applicable. Stay home if unwell.”* These were discussed to minimise the likelihood of contracting the virus. For some getting the COVID-19 vaccine provided additional security, *“making sure myself and my family are fully vaccinated and living a healthy lifestyle.”* In contrast, vaccine mandates created insecurity for others, *“being able to make my own health choices without being forced to make medical choices I don't want to. Not being forced to take a vaccine or any other medicine.”* Highlighting the importance of personal choice when implementing preventative measures.

Preventative Healthcare. While many participants indicated that they currently implement strategies to stay healthy and minimise their likelihood of becoming ill, it was felt that the existing healthcare system within Aotearoa New Zealand, was lacking in this aspect. One participant stated, *“healthcare needs to be seriously looked at...prevention and education is key - not the current ambulance at the end of the cliff approach.”* Allocating further funding to education and preventative resources was identified as a solution to this issue, *“I would like [health security] to*

mean that people's health is a priority and resources are poured into education, prevention and avoidance of behaviours that promote ill health. So that far less of the health budget goes on dealing with preventable unhealth."

Access to health education was identified as a critical aspect of minimising the risk of illness by helping people make the right choices to maintain their health, for example, *"the right to...education to be able to make healthy choices for oneself."* Regarding preventative resources, certain services were discussed as necessary for maintaining a good level of health, including exercise facilities, massage, physio, acupuncture, chiropractors, and mental health services. It was suggested that making these services free or heavily subsidised would make them more affordable and accessible to all people, *"areas such as pools should be free to use as well as community gyms...nutritionists, personal trainers should be considered essential to health care along with psychologists."*

Attaining Healthcare Once Unwell. Participants indicated that they expected to access an adequate public health system to meet their needs once they are unwell. Insufficiencies within the existing public health system were identified. To mitigate these inadequacies, participants discussed taking personal responsibility for their healthcare. The importance of making informed choices about healthcare and all information being private and secure was also discussed.

Adequate and Accessible Public Healthcare. Many participants identified having access to an adequate public healthcare system as an essential aspect of health security. Five key concepts were prevalent in describing what participants perceived as an adequate public health system – well-resourced, affordable, timely, holistic, and equitable. A well-resourced healthcare system includes both competent professionals *"having access to the public health system, and knowing that the professionals within it know what they are talking about and are confident in their practices,"* as well as enough professionals and facilities to meet the needs of New Zealanders *"knowing that there is enough capacity in terms of hospital beds and medical staff and medicines to know that I would be able to treated should I become ill."*

Many respondents discussed the need for the public healthcare system to be affordable, *"health security to me means knowing I can seek medical advice, and care when needed without being concerned with being left with a huge medical bill I cannot afford."* Time was also discussed extensively, specifically that a person should be able to access the care they require without long waitlists; for example, *"should I or my family need care or treatment, we will be able to access it in a timely fashion."* Regarding a holistic healthcare system, the majority of participants described this as having more accessible mental health services, *"on a wider scale, [health security is] having an adequate public health system. This should also include mental health services, which are lacking,"*

however for others, it also included spiritual well-being *“having systems and programmes to support all sides of health. That all 4 sides of Mason Durie's Whare Tapa Whā health model are working together to make the best and healthiest me - taha tinana (physical well-being), taha hinengaro (mental well-being), taha wairua (spiritual well-being), taha whānau (family well-being).”* Lastly, and perhaps most importantly, participants outlined that the above four aspects of an adequate public health system should be accessible to all New Zealanders, irrespective of location *“availability of health services irrespective of postcode. Availability of necessary medicines. Adequate care in the health system,”* socio-economic status, and ethnicity *“a good public health system, well-funded and without bias of ethnicity, gender or prosperity...based on need and not who can pay or influence.”*

Respondents identified gaps within each of these five concepts, indicating insecurity for some participants. For example, within well-resourced, one respondent stated that *“hospitals currently do not have enough staff to deal with increases in Delta patients, they do not have the appropriate facilities to house them in the hospitals to keep staff and others safe.”* Participants also noted that *“being able to access a doctor is great but getting harder as the prices climb, but feel as I age this will be more of a stress full problem,”* impacting the affordability of healthcare. One example mentioned by a participant illustrated deficiencies within the concept of timely healthcare, *“I have had to go private for my cancer at moment as wait for hospital would have meant it spread everywhere.”* Inadequacies within holistic healthcare were discussed concerning access to mental health services, *“easy access to health care, but it's fucked for mental health it's not free counselling sessions are 90 \$ and the loops you have to jump through are stupid so health security in NZ is shit.”* Lastly, participants noted inequitable healthcare across regions and ethnicities; for example, *“I have a rare pain syndrome as a result of a brain stem stroke and can't find adequately informed doctors in my region. They are all in Auckland or private and I can't afford that.”*

Respondents discussed taking personal responsibility for fulfilling the inadequacies of the existing public health system, namely by using their financial means to pay for healthcare and/or health insurance, *“[health security is] having the finances or insurance to get the treatment I need to stay healthy.”* Having personal funds and insurance provided an additional layer of health security; these were discussed as a means to counteract the following issues identified within the public healthcare system. Lack of resources *“I currently pay for all of my immediate whānau for private insurance. This is security from my lens. Our public health care system is far too stretched,”* long waitlists *“I have health insurance as I don't think the waiting times through our public system give me the security I need,”* the physical health-focused system *“[health security is] having enough money to pay for health insurance. Having enough money to pay for incredibly important holistic*

health practitioners who aren't always covered by health insurance, yet make a world of difference to mental, emotional and physical health,” and lastly, inequitable healthcare “having private insurance so I have options and don't have to be stuck in the public system that serves Tangata Whenua like myself so badly.”

Participants discussed the importance of having the ability to collect information and freely make their own informed healthcare decisions, *“health security? It's all about Choices and having the right to be fully informed to choose for oneself without any pressure, influence or fabrications.”* This was relevant across all healthcare providers, both public and private. However, it was indicated that health insurance and access to private healthcare provided more choice; for example, one respondent noted that they have *“private insurance so I have options.”* Freedom of choice included three key aspects, 1) being able to access unbiased information and be fully informed about treatment options *“with regard to my own or whānau personal health - to have access to information regarding health issues. To discuss...a health plan with health professionals, to know and understand what that means with regard to treatment. To understand from a historical viewpoint, how and why this plan is the best option,”* 2) free to make own choice based on the gathered information without influence or pressure, and 3) any choices or decisions a person makes are respected and accepted, for example, *“to me health security means... I have a choice in my treatment, and my choices are respected. It means I am not coerced, forced or pressured.”*

Lastly, any information provided to health professionals was expected to be treated confidentially and privately, *“for me health security is around the privacy of personal information such as dr notes etc.”* Healthcare providers who store data electronically are expected to have sufficient security measures to protect client information, *“that my personal details and notes are secure...That their systems have the latest cyber technology.”* Furthermore, participants noted that information should only be shared with, and accessed by, authorised qualified professionals, *“if I give approval for my information to be seen by a 3rd party (insurance, acc etc.) it is read by someone qualified to do so.”* This is strongly linked to the meaning participants attributed to cyber security. These notions – secure personal information, adequate security measures, and not passing information on to third parties without prior approval - are discussed as critical aspects of cyber security.

A brief synopsis of each of the remaining eight securities is presented below. See Appendix E for a word cloud demonstrating common concepts discussed by participants within each security item.

Food Security

Participants defined food security as everyone having access to enough safe, healthy, nutritious, and good quality food and water to meet daily dietary requirements. Dietary requirements included both personal choice and medically diagnosed allergies and intolerances, such as a vegetarian diet, culturally appropriate food, or gluten-free food. Participants stated that food should be equitably distributed at an affordable and reasonable price to ensure everyone within Aotearoa New Zealand and the world has access to this basic human right. To truly feel secure, many participants needed to know where their next meal was coming from and feel assured that they would continue to have access to food to feed themselves and their families into the future. The type of food varied for participants; some felt secure if basic food was available, while others required a wide variety of food that enabled personal choice.

Access to food was gained by having enough money to purchase food, whether through personal income or publicly funded financial support, being self-sufficient by growing, raising, gathering, or hunting own food or through publicly distributed food systems, for example, food charities and food banks. Predominately, participants in the current research accessed food by purchasing it using their income and growing their own vegetables and fruit.

A key component of access to food discussed by participants was the confidence that Aotearoa New Zealand has a stable and sustainable food supply that won't experience shortages. More specifically, COVID-19 was identified as a threat to food security due to food shortages and price increases resulting from food supply disruptions and people's panic buying and stockpiling of food.

Sustainability was outlined as necessary to ensure future generations continue to have access to enough food. Participants indicated that, ideally, this food supply would be sourced locally from within Aotearoa New Zealand, with minimal food imported from overseas to help ensure food safety levels. In addition, all food should be produced within a healthy, unpolluted environment, with minimal additives, genetic modification, and chemicals, meet the New Zealand Food Safety rules, and be labelled with the origin, ingredients, and any additives.

Economic Security

Participants discussed economic security in terms of two levels – personal and national. Personal financial security was defined as having enough money to pay for bills and basic human rights for self and family, including food, shelter, healthcare, heating, education, clothing, and transport. It was also derived as having the security of savings to pay for any unexpected expenses. For many having enough money was not just about the present; it was about security for the future. Preparing for retirement through secure investments, saving money, and contributing to KiwiSaver

and superannuation funds were outlined as strategies to ensure financial security and comfortable living throughout life.

In some instances, the notion of enough money was broadened to include the ability to maintain current standards of living and have a comfortable life. Disposable income was essential to enable this notion of living, having money to spend on entertainment, socialising, and holidays. Affordable housing that allowed people to purchase their own homes was also important.

Participants outlined that ideally, this income would be earned via secure employment providing financial independence. However, having a publicly funded financial support system to fall back on in times of need provided an additional level of security. Reliable employment, with equal employment opportunities, guaranteed hours, pay equity, and an income that meets the cost of living, were outlined as necessary factors in attaining job security.

National economic security was discussed as having a stable economy that creates equal employment opportunities. Functioning and thriving businesses, healthy international trade agreements, a globally competitive NZ dollar, fair taxation, and low inflation were highlighted as critical aspects of developing a stable economy with growth potential. In addition, national economic security was derived as having the funds to support infrastructure, provide healthcare and education, and help those in need to ensure everyone has access to fundamental human rights within Aotearoa New Zealand. Participants highlighted the government as the responsible party for attaining national economic security through controlling Aotearoa New Zealand's expenditure and appropriately managing debt. Banking institutions were also highlighted as having a role to play by ensuring they were robust and dependable and provided secure online services.

The COVID-19 pandemic was discussed as a threat to economic security, specifically through the numerous lockdowns, which impacted businesses' ability to function, people's ability to work, and increased government financial support expenditure. Participants expressed the fear that COVID-19 may cause more companies to go under, resulting in an increased unemployment rate, more families in poverty, and increased country debt.

Community Security

Participants derived community security as feeling a sense of belonging, acceptance, and connection to specific groups of people. Looking after each other, providing support and caring about the welfare and well-being of other members were discussed as core components of building safe and secure groups. Predominately participants defined community groups concerning the geographical region in which they reside, including the neighbourhood and the broader local community. A small portion of participants expanded this notion to include groups that shared

common values, culture, religion, sexual orientation, or interests, for example, a marae, work, church, school, or sports group.

Regarding residential community groups, participants defined community security as feeling safe in their homes and moving around the local area anytime, day or night. This included the safety of their personal belongings. Low crime rates were discussed as necessary in creating this feeling of security. Visible and well-resourced police, a fair justice system and socially cohesive groups such as neighbourhood watch further contributed to the perception of low crime rates. All community members having access to fundamental human rights, such as shelter, food, healthcare, education, and employment, was also highlighted by participants as an essential contributing factor to decreasing crime rates and subsequently increasing perceptions of safety.

Being inclusive and respectful of all members, accepting differing opinions without judgement and building positive relationships with neighbours contributed to a sense of acceptance and belonging within local communities. Participants further considered that social connection is made through access to shared facilities, resources, and safe infrastructure. This included access to libraries, parks, emergency services, hospitals, mental health services, public transport, safe roads, and safe schools, coupled with appropriate funding by the Local Council to ensure the community benefits from these facilities and infrastructure.

Environmental Security

Respondents defined environmental security as having a healthy, liveable environment, including clean water, air, and land, for now and future generations. For many participants, environmental security also included having an environment safe from natural disasters with appropriate infrastructure. The relationship between people and the Earth was discussed as reciprocal – in return for protecting the natural environment; the earth will protect the human species by providing a healthy and liveable world. Protection of our environment and natural resources included protecting waterways, land, air, native plant life and wildlife species, oceans, the Aotearoa New Zealand ecosystem, and maintaining biodiversity. Participants considered that reducing and reversing human impact on the environment was required to protect these natural resources. Minimising carbon emissions, reducing pollutants, using sustainable practices, recycling, composting, reducing the use of plastic, using reusable products, growing own fruit and vegetables, purchasing organic food, adequately disposing of waste, using renewable energy sources, pest control and border controls ensuring overseas pests are not brought into the country, as well as an approach to managing the natural environment based on the Māori world view Kaitiakitanga, which means guardianship and conservation, were some of the protection strategies identified by participants.

Participants discussed environmental security and the ongoing sustainability of our way of life as the responsibility of individuals, businesses, the government, the nation, and the worldwide population. There was a call for the government and businesses to put environmental security at the core of their decision-making, basing these decisions on scientific evidence. In addition, for the government to implement and enforce laws, regulations, and policies to protect all natural resources, targeting both individuals and sectors, for example, farming regulations and fishery zones. Increasing the responsibility of businesses was described as a way to ensure they carry out sustainable practices. Climate change was acknowledged as a significant threat to environmental security. To truly tackle this issue, participants highlighted that global collaboration was required.

National Security

Participants defined national security as a country, its people and their values, culture and way of life being safe from threats. Threats were seen as both external, outside the nation, and internal within the nation. Participants' external threats were environmental threats (e.g., climate change), outside influences impacting political processes, invasions from other countries, cyber-attacks, war, and disease entering Aotearoa New Zealand. COVID-19 was also identified as an external threat to Aotearoa New Zealand's national security. Internal threats included civil unrest, natural disasters, human rights violations, not upholding the Treaty of Waitangi, breakdowns in democracy and gangs. Terrorism, illegal drugs, and crime were presented as external and internal threats.

Having trust in the government was identified by participants as a critical aspect of national security. This included feeling confident that the government will make decisions in the best interests of the nation and will have the resources and agencies to protect the country, its border, and its people. Participants considered that it was important for decisions to be made by kiwis for kiwis, with no outside influences. This included the government's strategies around managing COVID-19, responsible spending, actively upholding the Treaty of Waitangi and the human rights of all those who reside in Aotearoa New Zealand, and making decisions regarding the protection of the country's natural resources and environment.

Participants discussed a wide range of protection agencies required to attain national security. Protection agencies included the defence force, such as the Army, Navy, and Airforce, to respond to invasions and other external threats. Intelligence agencies such as New Zealand Security Intelligence Service and Government Communications Security Bureau to proactively monitor threats and maintain data security. An ethical police force protecting New Zealanders from crime. A fair and equitable justice system. A robust national emergency system ensuring effective and efficient responses in times of emergency and natural disasters. As well as immigration and border

control having appropriate processes for screening people coming into Aotearoa New Zealand. Further protection is gained globally by having good international relationships and strong alliances with nations with which Aotearoa New Zealand shares similar values and ideals.

Political Security

Participants defined political security as having a stable, honest, and ethical government that the people elect through a fair democratic process. They identified that it is the government's responsibility to serve the best interests and welfare of the people they represent. This included the government delivering on the policies they were elected based on. Taking public opinion into account when making decisions regarding policy and spending, then clearly and accurately communicating this process to the nation was described as contributing to transparency and building trust. To provide the same level of political security to all groups within Aotearoa New Zealand, participants highlighted that it is vital that the government is representative of the nation and includes a diverse range of voices. Within Aotearoa, this includes having fair and equitable processes in place to ensure the Treaty of Waitangi is honoured and upheld across the country.

Participants further derived political security as the government ensuring that all fundamental human rights are met and protected for all people residing within Aotearoa New Zealand. Human rights explicitly outlined within a political context included the right for people to support any political parties and agendas without discrimination, the right to voice political views without repression or harm, and the right to vote for the political parties they choose without coercion. However, participants made it clear that these are within reason – these political rights should only be upheld as long as they do not cause harm to others. Extremist ideology was presented as an example of a political view that may cause harm.

Having good relations and robust trade agreements with other countries was discussed as contributing to a stable economy and the protection of Aotearoa New Zealand. However, to feel politically secure within a nation, it was expressed as necessary that outside influences do not impact political systems, elections, or political parties within the country. In addition, participants described that having a balance between an opposition party that can hold the elected political party accountable and work collaboratively with the elected party towards key goals helped build trust and perceived political stability.

Cyber Security

Participants described having cyber security when their personal device(s), data, information, and online identity are safe from unauthorised access and crime, including crime of a sexual nature, hacking, phishing, malware, financial fraud, identity theft, bullying and scams. It was important for a person to have control of their own data and determine how it is used. In addition,

cyber security was discussed as safely operating online without being presented with false information and harmful content. Participants extended cyber security to include the safety of their families and children.

Participants described cyber security as their responsibility, the responsibility of businesses, and the responsibility of the government. Personal strategies discussed included keeping personal information safe by using strong passwords, two-factor authentication, only visiting secure websites, ensuring programmes are up to date, not clicking on suspicious links, using security software including virus protection, not sharing personal information online that could make a person's identity easily attainable, educating self and family about cyber safety etc. Regarding businesses, it was expected that companies who provide online services or store data electronically, including banks, online shops, internet service providers, district health boards and government departments, had sufficient security measures in place to protect customer information. This included the requirement that businesses not sell or pass the information on to third parties without prior approval.

Lastly, participants expected the government to have agencies and systems to monitor cyberspace to protect Aotearoa New Zealand and its citizens from cyber-attacks. This included adequate policing and monitoring of the cyber world – scanning the dark web, tracking the activity of radical and terrorist groups, and identifying and prosecuting criminal behaviour. This also included protecting the infrastructure and providing reliable internet access for the population.

Global Security

Respondents described global security as feeling safe in the world we live in and all nations and people peacefully coexisting. It encapsulates all the other nine securities globally – stability across the world in personal, health, food, economic, community, political, national, cyber, and environmental security. This included protecting all people from threats such as violence, oppression, war, terrorism, climate change, COVID-19, poverty, foreign invasions, global economic crises, human rights violations, famine, international cyber-attacks, and nuclear weapons, etc. A vital aspect highlighted and extensively discussed by participants was people being able to travel freely and safely between countries.

Participants further derived global security as all nations working together to protect the people and natural environment by ensuring mutual survival and universal human rights. Respondents outlined that this could be attained by being global citizens who care about the best interests of all people—being inclusive of all countries, religions, cultures, ethnicities, and accepting that people are different. Furthermore, by having competent leaders who communicate diplomatically and work collaboratively towards addressing issues and building initiatives for all

nations. And lastly, having international organisations (for example, United Nations, World Health Organization, European Union, The North Atlantic Treaty Organization, and international courts) to help facilitate worldwide collaboration, treaties and laws between nations, and holding leaders accountable.

Key international agreements highlighted by participants were cooperation between countries on the management of climate change and COVID-19, implementing worldwide sustainable practices to ensure the survival of our planet, mutually beneficial trade deals, as well as the equitable distribution of resources and wealth around the world to ensure all people have access to healthcare, enough food, clean water, shelter, education, employment etc. In addition, agreements around the sharing of power were discussed by some participants, so no one ideology has control, allowing each nation to rule independently, by the people, for the people, without fear of invasion from other countries.

Meanings Compared to Previous Definitions

Many differences were detected when comparing the above meanings to previous definitions proposed by the 1994 United Nations Development Report (UNDP, 1994) and Carr et al. (2020). Four definitional broadenings were seen across multiple security items, including broadening from self to family, physical to psychological, from here and now to future, and lastly, both human security pillars being present within individual security items.

Broadening from Self to Family. Many participants have broadened the notion of self to include loved ones, children, and family. It appears that many participants in the current research did not separate themselves from their family/whānau and expected the same level of security for their loved ones. This broadening was seen in the meaning attributed to personal, health, food, economic, and cyber security. For example, within food security, this was demonstrated by participants discussing the need to have enough food to feed themselves and their families. One participant described food security as *“having sufficient good quality, healthy food to feed myself and my family at all times.”* The inclusion of family differs from previous definitions, which generally focused on the individual or wider society.

Broadening from Physical to Psychological. The 1994 Human Development Report extensively discussed physical safety; however, mental health and psychological safety were not touched on. Participants in the current research addressed the need for psychological safety and the importance of mental health in attaining personal, health, and community security. For example, within health security, many participants described the importance of having access to mental health services *“on a wider scale, [health security is] having an adequate public health system. This should also include mental health services,”* and support for wider well-being *“having systems and*

programmes to support all sides of health. That all 4 sides of Mason Durie's Whare Tapa Whā health model are working together to make the best and healthiest me - taha tinana (physical well-being), taha hinengaro (mental well-being), taha wairua (spiritual well-being), taha whānau (family well-being)” to attain health security.

Broadening from Here and Now to the Future. To truly feel secure, many participants outlined that it is crucial to know they will have access to certain resources for the foreseeable future. This was discussed within personal, food, health, economic, environmental, and global security. While future security was touched on within the 1994 Human Development Report, it was discussed more explicitly within the current research. Participants discussed sustainability when attributing meaning to both food and environmental security. It was outlined as necessary to ensure access to natural resources and food into the future, such as *“future proofing the health and well-being of our land, waterways sea and sky in a way that is life giving and sustainable for generations to come.”* Sustainability was also discussed within global security to ensure the planet's survival, *“global security would mean everyone working together to ensure our planet is sustainable long term for all.”*

Human Security Pillars. Both freedom from fear and freedom from want were discussed within multiple security items, including personal, community, environmental, political, national, and global security. This can be argued as a broadening from previous definitions and those who separate the security items between pillars. The 1994 Human Development Report's definition placed personal security securely in the freedom from fear pillar of human security as it focused on being safe from physical violence (UNDP, 1994). However, the meaning attributed to personal security in the current research broadened this previous definition to include the freedom from want pillar, specifically, that access to financial resources and fundamental human rights were outlined as requirements to attain personal security. For example, one participant described personal security as *“having my basic needs like food, water, shelter, etc., available to me [and] having enough money to provide these things.”* Demonstrating that both pillars are linked and equally relevant across human security and individual security items, providing an endorsement for taking a broad approach to human security.

Cross-Cutting Themes

A few concepts were found across multiple securities, demonstrating the interrelated nature of the 10 examined security scale items under the umbrella of human security. Two key themes were identified that were discussed within all 10 security items, 1) access to human rights and 2) COVID-19 as a threat to security.

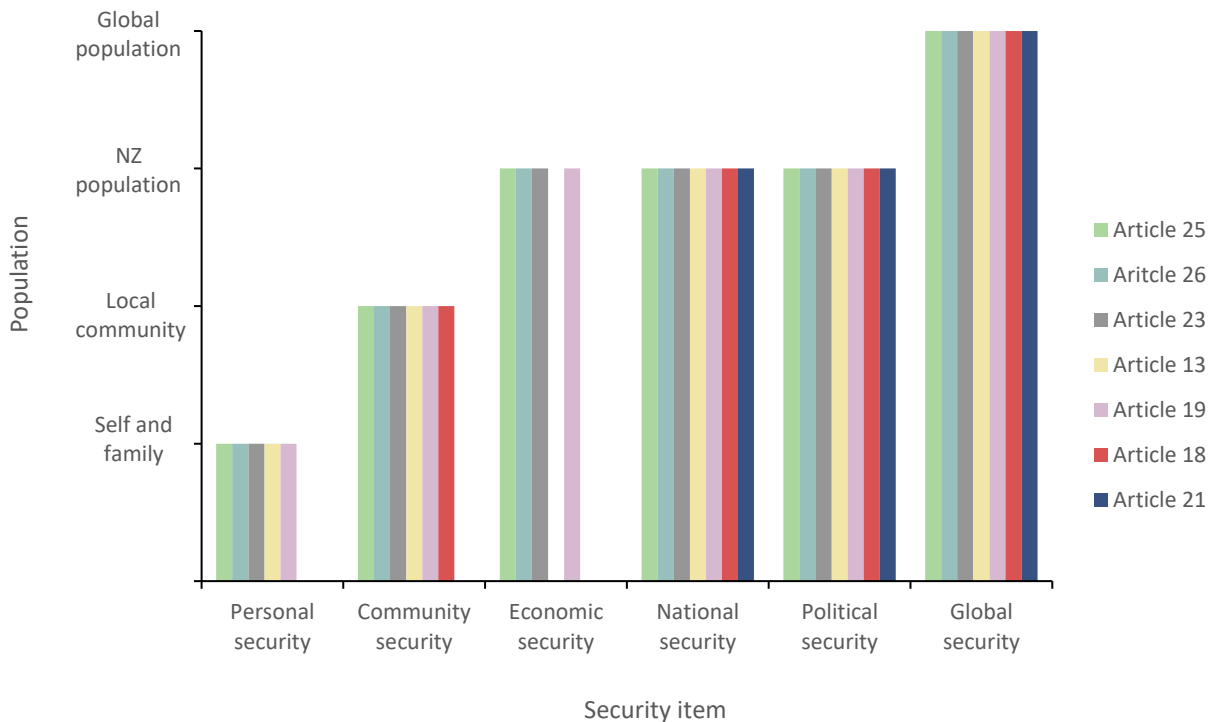
Access to Human Rights. This theme ran through all 10 of the examined security items. The Universal Declaration of Human Rights (UNGA, 1948) maintains that all human beings are entitled to a range of human rights, including the right to freedom of movement (Article 13), the right to have any religious beliefs (Article 18), right to freedom of opinion and expression (Article 19), right to vote for the government of their country (Article 21), right to employment (Article 23), right to an adequate standard of living including food, clothing, housing, healthcare and access to social services (Article 25), and the right to an education (Article 26). While the declaration includes further rights, the above have been outlined as participants consistently addressed these throughout the security items. See Appendix F for quotes from respondents demonstrating the relationship between individual security items and human rights.

Overall, it could be argued that the notion of human rights broadened as it stepped up the Security Staircase scale, as visually displayed in Figure 6. In the first step – personal security – human rights were discussed concerning self and immediate family having access to an adequate standard of living, right to employment, right to education and freedom of movement. The discussion of human rights broadened significantly in the step up from personal to community security, with the addition of the right to freedom of opinion and expression. It also expanded to include all people within the local community. Stepping up to economic security broadened the notion of human rights further; at this step, participants discussed human rights concerning all people within Aotearoa New Zealand. However, a slightly smaller number of human rights were addressed in this step. Stepping up to national security does not broaden the population the rights are applied to – all New Zealanders – however, at this step, an additional right is introduced, the right to vote and participate in fair elections to select the government of Aotearoa New Zealand, broadening the notion of human rights further. Most participants discussed human rights in a generalised manner within political security, for example, *“trusting that my government will listen to the voice of the people and that they will preserve democracy, freedom, and human rights above political struggles,”* with a particular focus on the right to vote and express political opinions. Therefore, political security includes all previously mentioned human rights for all people residing in Aotearoa New Zealand. Progressing to the final step in the Security Staircase scale, global security broadened human rights again, as participants discussed all people globally having access to the rights outlined above.

Food, health, cyber and environmental security did not fit this pattern. These were discussed regarding one human right – Article 25 for food, health and environmental security and Article 13 for cyber security. Participants predominately applied the rights, within these securities, to Aotearoa

Figure 6

Broadening of Human Rights as Stepping up the Security Staircase Scale – Number of Rights and Population Rights Applied to



New Zealand as a whole. Therefore, they were discussed narrowly concerning the number of human rights (only one) but broad regarding the people they covered (all New Zealanders).

COVID-19 as a Threat to Security. The COVID-19 pandemic was mentioned by participants within each of the 10 interrelated security items, illustrating how a threat to one area – the COVID-19 pandemic on health security – can have a flow-on effect on all other security components. Participants discussed COVID-19 as an external threat to personal security “*being safe from harm, physically and emotionally and safe from Covid,*” in which they had a personal responsibility to protect themselves and their families, “*we chose to be vaccinated, we still wear masks when leaving the house.*” Similar individual protective measures were identified within the health security preventative approach theme, “*protecting myself from disease. Taking personal measures to keep myself safe. Wearing...a mask, getting vaccinated. Taking ownership in a proactive way to keep myself healthy.*” COVID-19 was also highlighted as a threat to health security, as it was feared that Aotearoa New Zealand might not have adequate resources to respond to the pandemic, “*hospitals currently do not have enough staff to deal with increases in Delta*

patients, they do not have the appropriate facilities to house them in the hospitals to keep staff and others safe.”

Furthermore, some participants felt that the pandemic impacted their freedom of choice regarding vaccination, “[*health security*] means I am not coerced, forced or pressured into having vaccinations or ANY sort of inoculation or health treatment offered. And not being discriminated against if I refuse to have said treatment or vaccination.” This freedom of choice to vaccinate or not was also discussed by participants as a threat to political security; for example, one participant described political security as “*unity of country - no civil unrest. But also, in the smaller things of political unity vs division. Covid example: causing division between vaccinated and unvaccinated people. Inciting fear to further a cause rather than reducing fear.*”

Trust in governmental decisions, including those regarding the COVID-19 response, was discussed by respondents as an essential aspect of political security “*I’d say political security for me is feeling safe in the prime ministers decisions, especially around covid.*” These governmental decisions included COVID-19 national strategies that are linked to national security. For example, the closing of the nation’s borders “[*national security*] is about the protection of NZ and its borders. Example would be the decision to close our borders during the Covid pandemic to protect all Kiwis” and putting strategies in place to manage the identification of COVID-19 in people entering Aotearoa New Zealand “*that it’s safe to go about everyday normal life free of terrorist threats or pandemics. That our NZ borders have safe, stringent measures in place to stop terrorists from entering NZ and people to be COVID tested and spend time in MIQ facilities. That Police set up check points to monitor people’s adherence to COVID management rules.*” Border controls were further linked to environmental security, where participants discussed COVID-19 broadly in relation to keeping diseases out of Aotearoa New Zealand, for example, “*diseases are kept out of the country.*”

Within food security, COVID-19 was described by participants as a threat to both access to food “*food security means...trusting that food supplies in the shops are reliable. Again, this was challenged in covid times/lockdowns by people stockpiling and panic buying food*” and affordability of food “*having things people need and want available and reliable prices. With covid everything went up in price. The fear makes people buy more so supermarkets keep cashing in. The price never goes back down.*” This subsequently links to economic security and the perceived impact the imposed lockdowns had on the ability to earn an income; one participant noted that “*with Covid lockdowns...some businesses are unable to open...if too many businesses go under, then there will be less spending higher unemployment and perhaps many more families in poverty and struggling to make ends meet.*” Some respondents expressed concerns that the lockdowns threatened the

economic stability of Aotearoa New Zealand, with one participant saying, *“at the moment, I feel that the economy is very unstable, due to lockdowns in NZ...I don't feel economically secure at all.”* This idea was also expressed within community security, specifically by participants in regions that rely on tourism to keep their economy stable, *“that our community can survive the impact of covid (tourism town).”* Specific communities throughout Aotearoa New Zealand, worked together to implement their own COVID-19 management strategies to ensure the safety of the local people, with one respondent describing community security as *“something which may protect our community, i.e., roadblocks during the pandemic.”* Participants' discussion of economic security was also related to cyber security, explicitly keeping financial information secure while using online services. This was particularly salient to participants during the alert level lockdowns as people could not visit banks, with comments like: *“being able to do online banking safely as we can't go into a bank during lockdown.”*

Lastly, COVID-19 was extensively discussed as a threat to global security; it was identified as a cause of instability worldwide. One participant stated that *“the pandemic is making the world not global secure. Covid is causing a general feeling of unrest and lack of global security.”* For some participants, COVID-19 broadened their conceptualisation of global security, *“up until the most recent pandemic I thought of global security in terms of nuclear weapons. Now equally pressing is security from the transmission of disease.”* Many participants felt that COVID-19 required a global strategy and cooperation to effectively manage the pandemic, *“united global consistent action against Covid and other disease.”*

Chapter 4: Discussion

This study adopted a subjective approach to measuring 10 security items under the umbrella of human security during the Aotearoa New Zealand COVID-19 pandemic. Four questions were investigated to replicate and expand on previous human security research. When examining the results across these questions, three key patterns emerged, 1) the identification of insecurity and prioritisation within the Aotearoa New Zealand COVID-19 context, 2) the inequitable distribution of (in)security across self-identified ethnicities and occupational statuses, and 3) support for a stepwise model of human security and the proximal-distal theory within importance ratings. This section will begin by briefly outlining the findings related to the four research questions. The three key patterns will then be discussed in detail and linked to theory. Study limitations and future research suggestions will be described, along with the implications for conceptualising and measuring human security. Lastly, this section will outline the practical applications for the Security Staircase scale and Adapted Security Staircase scale.

A Brief Outline of Findings to Four Key Questions

The findings to question one demonstrated a stepwise, hierarchical model of human security where securities were deemed more challenging to attain as a person progressed up the Security Staircase scale. The order of security items varied across the two-time points, suggesting that the Security Staircase scale is sensitive to socio-economic factors. Many New Zealanders in the convenience sample felt less secure regarding economic, health, environmental and global security within the examined COVID-19 context. The results suggested that (in)security may not be evenly distributed within Aotearoa New Zealand, with some groups experiencing more insecurity than others.

Question two built on previous research by measuring the importance of each security item and mapping importance ratings against attainment. Health and economic security were deemed highly important within the current context but low in terms of achievement when compared to other securities, identifying two areas of insecurity that required prioritisation.

When examining the results from question three, human security was related to life satisfaction, positive affect, and negative affect. Those securities at a proximal and social level, deemed more controllable by a person, had a stronger relationship with life satisfaction than those at the distal level. Thus, supporting the proximal-distal theory of human security.

Lastly, examining the meaning participants attributed to human security provided valuable insights that supported the previous questions' findings. Some key themes identified across the security items included their interrelated nature, broadening of meaning compared to previous definitions, and a link between human rights and human security.

Areas of Insecurity and Prioritisation in the Middle of a Pandemic

Participants identified personal and food security as the easiest to achieve before COVID-19 was detected in Aotearoa New Zealand, and approximately eighteen months into the pandemic. Environmental and global security were the hardest to attain across both time points. The remainder of the security items shifted in order of attainment across the two-time points, in a pattern that could be explained by the changing COVID-19 landscape, suggesting that perceived threats and (in)security shift during a crisis. Health, economic and national security were perceived as less attainable during the pandemic and community, political, and cyber security as more achievable.

While the Security Staircase scale has some promise in being applied as a subjective measure of human security, the addition of the ranked importance measure (Adapted Security Staircase scale) was critical to identifying gaps and providing guidance for the prioritisation of policies and responses to threats within the given research. The Security Staircase scale interpreted environmental and global security as the highest areas of insecurity. However, by including the importance rating, health and economic security were identified as the most critical areas of insecurity within the COVID-19 Aotearoa New Zealand context. Furthermore, additional prioritisation information was provided, with health security being the most vital to address and economic security being the second.

The health and economic impacts of COVID-19 have been extensively discussed within Aotearoa New Zealand, demonstrating that the measures were sensitive to the context. To illustrate this point, these perceived critical areas of insecurity will be situated within an account of broad societal relations in the middle of the Aotearoa New Zealand COVID-19 pandemic.

Health Security

Several factors within Aotearoa New Zealand, at the time of data collection and the study findings, support a high level of health insecurity. Firstly, COVID-19 and the response to the pandemic within Aotearoa New Zealand, have impacted physical and mental health, which participants outlined as essential aspects of health security. The physical symptoms of COVID-19 have been widely documented, with more extreme cases requiring medical attention and potentially resulting in death (World Health Organization, 2022). In August 2021, during data collection, Aotearoa New Zealand detected its first case of the COVID-19 Delta variant in the community (Arden & Bloomfield, 2021a). The Delta variant had rapid transmission, high infectiousness, and an increased risk of needing hospital care compared to earlier strains (Ministry of Health, 2022), bringing the COVID-19 pandemic health threats to the forefront of everyday life.

The nation immediately went into Alert Level 4 lockdown (Arden & Bloomfield, 2021). COVID-19 and the restrictions implemented to manage the pandemic have been shown to increase

psychological distress (Sibley et al., 2020), low well-being (Every-Palmer et al., 2020; Officer et al., 2022), anxiety (Every-Palmer et al., 2020; Gasteiger et al., 2021; Génereux et al., 2020) and depression (Gasteiger et al., 2021; Génereux et al., 2020) in New Zealand populations. On average, participants in the current research reported a lower level of well-being when compared to New Zealanders in the 2021 World Happiness Report (Helliwell et al., 2021a), which may tentatively suggest that some participants were experiencing psychological distress that could have conceivably impacted their sense of health security.

Furthermore, participants described five core components of an adequate healthcare system when discussing the meaning of health security. They identified insecurities within each of these areas within the current COVID-19 context. There were concerns that the existing healthcare system did not have enough resources to respond effectively to the pandemic, the price of healthcare was increasing, there were delays in treatment, difficulty accessing mental health support, and inequalities across the healthcare system. These perceived deficiencies provide insights into the notion that some individuals felt they could not access the factors required to achieve health security in the middle of the pandemic.

Economic Security

COVID-19 and the responses implemented by the Aotearoa New Zealand government have significantly impacted economic conditions. At the time of data collection, the nation appeared to be returning to pre-COVID rates concerning some economic factors, specifically GDP (Stats NZ, 2022) and the percentage of the population employed, unemployed or underemployed (Stats NZ, 2022a; 2022b; 2022c). However, when taking a deeper look at Aotearoa New Zealand's economy during this time, it is evident that four areas participants expressed as essential to securing economic security continued to be impacted. These included the cost of living, stable employment, the ability to earn an income, and the level of country debt. Thus, suggesting that the research process can help reveal to policymakers otherwise hidden risks to human security in everyday life.

Low perceptions of economic security are perhaps consistent with the various negative consequences uncertain, insecure work has for individuals, their families, and communities, including the challenge of planning for the future (Hodgetts & Stolte, 2017; Hodgetts et al., 2020; Thompson & Dahling, 2019). Precariousness in the Aotearoa COVID-19 context can be exhibited by an increase in temporary employment rates (Stats NZ, 2021) and the large portion of full-time employees who worked zero hours during September 2021 due to the alert level restrictions (Stats NZ, 2021a). Furthermore, there was an increase in the number of people receiving government-funded support while actively looking for or preparing for work (Ministry of Social Development, 2021), suggesting a higher portion of unemployed or underemployed people were seeking re-

employment. These factors, partnered with the increased cost of living (Stats NZ, 2021b), illustrate a precarious, uncertain economic environment.

When describing economic security at the national level, many participants outlined that minimal country debt was significant for perceptions of security. The government attempted to mitigate the effects of precarious employment by implementing a wage subsidy during the Delta lockdown period to provide financial support to businesses so they could continue to pay individuals and protect jobs (Work and Income, 2021). This, amongst other government response initiatives, led to increased spending and, subsequently, Aotearoa New Zealand's level of debt (Trading Economics, 2022). Therefore, highlighting another factor that may have contributed to the perceptions of economic insecurity.

The above discussion illustrates the socio-economic factors and context that may have contributed to health and economic insecurity perceptions. Aotearoa New Zealand, within a different context, could conceivably be subject to entirely different areas of insecurity. The author does not suggest that Aotearoa New Zealand lacked policies, mandates and actions addressing health and economic threats during this time. Aotearoa implemented many responses that directly targeted health threats, such as vaccine and mask mandates. The government also implemented responses to mitigate economic effects as outlined above. The author suggests that these policies would have benefited from being evaluated for effectiveness in decreasing perceptions of insecurity. These policies may have required some adaption or reframing to provide further security for New Zealanders, or potentially additional approaches may have been needed.

Distribution of (In)security Across Aotearoa New Zealand

The current research aimed to examine potential differences in human security between diverse groups to provide direction for future research. However, the detected group differences across self-identified ethnicity and occupational status are worth discussing in detail as they align with previous research (Carr et al., 2020), providing further evidence that human security may not be evenly distributed within Aotearoa New Zealand.

An interpretable difference in scale scores was found between Māori and people who identified as New Zealand European and Irish/British/Scottish. Māori, on average, reported a lower human security score than both European groups. An example of this difference can be seen within health security, where some participants explicitly stated that the Aotearoa New Zealand public healthcare system does not treat Māori equitably.

The difference between Māori and New Zealand Europeans has salience within the Aotearoa New Zealand bicultural society, as it demonstrates that (in)security may not be equally distributed across the two key cultural groups. Māori peoples, as *tāngata whenua*, continue to experience the

effects of colonisation and are over-represented within less privileged groups, indicating a coherent and concerning pattern within Aotearoa New Zealand. Thus, highlighting the importance of assessing human security and evaluating the effectiveness of implemented policies across these ethnic groups to ensure they do not exacerbate structural inequalities or cause adverse impacts.

The current research also found a difference in self-reported human security for the self-identified ethnicity Asian compared to New Zealand European, Irish/British/Scottish, and European. Carr and colleagues (2020) did not identify a relationship between these ethnic groups; however, this may be another example of the Security Staircase scale being sensitive to the Aotearoa New Zealand COVID-19 climate. Following the announcement of COVID-19 and its origination in Wuhan, China, reports of racism targeted at the Asian population increased within Aotearoa New Zealand (New Zealand Human Rights Commission, 2021; Thaker, 2021). However, this is a tentative suggestion as the Asian population only comprised one-point-nine per cent of the overall sample.

Group differences were also identified between self-reported occupational statuses. Those who were retired or were in full-time employment reported higher levels of human security compared to people in more precarious positions, including those that were unemployed, students or employed casually. While the specific groups that differed varied somewhat from previous research, they were coherent with Carr and colleagues (2020) conceptually meaningful pattern concerning precariousness.

The relationship between retirees and those who identified as unemployed, a student or employed casually is perhaps consistent with retirees having access to a stable income via a national pension system and access to free healthcare (Carr et al., 2020). Furthermore, those accessing a pension were unlikely to have experienced income disruptions due to restrictions implemented in response to the pandemic. The second finding, between those in full-time employment and those in more precarious positions, is consistent with an increase in insecure employment conditions and a decrease in decent work (Thompson & Dahling, 2019) and the detrimental effects this can have on the well-being of individuals, families, and communities (Hodgetts & Stolte, 2017; Hodgetts et al., 2020), as proposed by Carr et al. (2020). These conceptually appropriate links between human security and precarious work conditions illuminate the importance of having access to decent employment and a stable income in supporting or undermining the security of groups within society.

The differences between certain ethnic and occupational groups have been detected across two somewhat different samples and contexts, a relatively peaceful time in June 2019 (Carr et al., 2020) and the middle of the global COVID-19 pandemic in August and September 2021. Thus, the

different levels of human security between these groups may be structural inequalities within the Aotearoa New Zealand society, which the Security Staircase scale has detected.

Links to Theory

Various theories can be used to inform human security. The author proposes that due to the complex, broad, dynamic, and context-specific conceptualisation of human security, it goes beyond theoretical rigidity. Two theories will be linked to the study's findings, including the proximal-distal theory of human security introduced within the Literature Review and Assemblage Theory, which was recently proposed as an approach to understanding the complexities of human security.

Stepwise Model and Proximal-Distal Theory

This research supports a stepwise model, suggesting that security items can be hierarchically ordered from the easiest to attain through to the most difficult to reach within a given context. The order of securities at both data points within the given research did not follow the order Carr et al. (2020) found in their June 2019 study, with all items except personal security being presented in a different position. Research suggests that the Security Staircase scale is sensitive to changing socio-economic factors, indicating that local context could interfere and cause the security elements to reorder. Therefore, it is understandable that the perceptions and order of attained securities would have changed over time.

The changing order of securities based on context meant that the order of attained securities did not follow the proximal-distal pattern theorised by Carr et al. (2020), initially suggesting that the current research did not support this theory. However, the proximal-distal relationship was identified when examining the importance ratings, with most security items falling within the proposed bands. Personal, health and food security sat within the proximal flight; economic, community and environmental within the social flight; and national and political sat within the distal flight of the Security Staircase scale. Global security was not included in the initial research; however, as expected, it sat in the distal band within the current study. The only security that sat within a different level was cyber security – the existing research placed it within the distal band rather than the social. Suggesting that the proximal-distal bands of human security do not change in a pandemic; what does change is people's ontological realities. COVID-19 has altered the threats people live with in their everyday lives, which has changed their perceived ability to attain different security areas.

The proximal-distal flights identified within the importance ratings supported Carr and colleagues (2020) theory that human security may be psychologically associated with a person's sense of control. People have a higher sense of control over securing those items at the proximal level. Personal responsibility was discussed extensively within each of the securities positioned at

the proximal level of the Security Staircase scale. For example, participants outlined a wide range of strategies they could implement to keep themselves and their families safe to achieve personal security, including locking doors, carrying panic alarms, practising self-care strategies, having insurance etc. Supporting the notion that these individuals felt they had some control over securing the items at this level, as conceivably, if an individual feels responsible for attaining the security and has several strategies to achieve this, they are exhibiting the control they have in reaching that security.

At a social level, securities are expected to be less controllable by the individual than those at the proximal level (Carr et al., 2020). Still, they are arguably more controllable than those at the distal level (Carr et al., 2020). Participants indicated they had some control at this stage, discussing their responsibility to achieve economic and environmental security. Personal responsibility was not addressed within community security. For example, in economic security, individuals had some control over gaining employment that allowed for an adequate income or accessing a benefit. Economic security also had a national component dependent on government spending and international trade, which a person has less responsibility and control over. Regarding environmental security, individuals discussed their role; however, they indicated that businesses and the government were equally, if not more, responsible for achieving this security.

Individuals are thought to have the least amount of control over those security items at the distal level (Carr et al., 2020). The Aotearoa New Zealand government was extensively discussed as responsible for enabling people to attain the securities at this level. Participants described having some responsibility for achieving their own and their family's cyber security; however, once again, businesses and the government were highlighted as equally, if not more, responsible. Overall, this indicates that individuals felt they had responsibility and control over those security items at the proximal flight, some control over those at the social band and less power in securing the items at the distal flight of the Security Staircase scale.

Lastly, as theorised, those securities at the proximal level had the strongest relationship with happiness, in line with previous research examining the relationship between human security and well-being (Inglehart & Norris, 2012). Those who reported higher levels of personal, food and health security were more likely to feel satisfied with their lives, report feelings of happiness, and were less likely to have experienced sadness, anger and worry during the previous day. Personal, health and economic security were also found to predict how satisfied a person felt with their life. The strongest relationships were at the proximal level; as securities stepped up the security staircase scale, the relationship between attainment and well-being became weaker and, in some cases, non-existent. Thus, those securities individuals felt they had more power over impacted their perceptions

of happiness and life satisfaction. It is important to note that all relationships were weak to moderate.

Assemblage Theory

Research published since this thesis's commencement suggested that Assemblage Theory may be a valuable approach to understanding and informing human security (Hodgetts et al., 2022; Hopner et al., 2021). The author decided to include this framework within the theoretical discussion as it has relevance to the dynamic, context-specific conceptualisation that runs throughout the findings and the interrelated nature of the security items. Hodgetts and colleagues (2022) drew on Assemblage Theory to propose a new Human Security Psychology. They argued that adopting an assemblage theory lens is beneficial to conceptualising human security as the 10 security items are dynamic and interrelated. The interrelated nature was demonstrated by the COVID-19 context within the given research.

Fundamental to the assemblage theory approach to human security is the premise that the social world shared by human populations is comprised of various assemblages or dynamic socio-material arrangements, such as human security, that combine to constitute a social psychologically contingent ontology (Hodgetts et al., 2022). Each assemblage comprises elements that are both human (psychological) and non-human (material). Elements are formed according to societal and power structures referred to as processes, for example, racial, gender, wealth, and class dynamics.

The 10 dimensions discussed in this research can be seen as a human security assemblage. Socio-material factors such as employment and income, structural inequalities, ethnic differences, COVID-19 variants, lockdowns, border closures, vaccine mandates, supply chain shortages, and national and global contexts can be seen to shape how the human security assemblage comes together. Understanding how each of the 10 security items interact is vital to this idea, as it provides information about how events evolve in real-time as situations change (Hodgetts et al., 2022).

The COVID-19 pandemic illustrated how the 10 interrelated dimensions of human security are mutually influential and work in concert to shape perceptions of threats and insecurity. For instance, the first case of the global COVID-19 pandemic was detected in Aotearoa New Zealand on the 28th of February 2020 (Ministry of Health, 2020), leading the New Zealand government to implement a wide range of responses to protect the health of those residing in the nation. For example, an alert level system (Appendix B), physical distancing, health and hygiene practices such as wearing masks, national and regional lockdowns, travel restrictions and increased surveillance through monitoring movement (Ardern, 2020; 2020a; 2020b). These initiatives were initially viewed favourably, improving people's trust in the government (Goldfinch et al., 2020; Sibley et al., 2020; Thaker, 2021) and resulting in a landslide re-election win for the Labour Party (Electoral

Commission, 2020). Lockdowns and the closure of the nation's borders also led to a decrease in the emission of greenhouse gases and a subsequent increase in air quality within Aotearoa New Zealand, during lockdown periods (Baldwin et al., 2020; NIWA, 2020). However, the alert level system and nationwide lockdowns also exacerbated areas of insecurity by impacting individuals and the community's ability to work and earn an income (Elers et al., 2021; Thaker, 2021), decreasing individual's psychological health (Every-Palmer et al., 2020; Gasteiger et al., 2021; Génèreux et al., 2020; Officer et al., 2022; Sibley et al., 2020), increasing the inequitable distribution of food and resources (Blake, 2020; Elers et al., 2021; Munford, 2021), and increasing government spending (Trading Economics, 2022; Work and Income, 2021).

Processes and elements may change, causing an assemblage to break apart and elements to reassemble differently (Hodgetts et al., 2022). This can be seen in the current study through the reordering of the Security Staircase scale across the two-time points. The prior to COVID-19 human security assemblage ruptured and reassembled in a new order of psychologically perceived (in)security amidst the introduction of new non-human elements and processes, such as the variants of COVID-19, lockdowns, vaccine mandates, supply shortages, and border closures. The previously discussed example outlining the shift in health and economic security demonstrates two non-human elements and how their introduction can lead to the rupture and reassemblage of human security. The introduction of the Delta variant to the Aotearoa New Zealand community and the subsequent nationwide lockdown led to an increased risk to both physical and psychological health and increased economic precariousness. These factors caused individuals and groups to reassess their perceptions of threats, resulting in the human security assemblage breaking apart and the items reassembling with health and economic security being more difficult to attain within the new socio-economic environment.

Assemblage theory is proposed by Hodgetts and colleagues (2022) as a lens to orientate how elements and processes assemble, break apart and reassemble to provide an understanding of human security across changing and evolving events, for example, COVID-19. Adopting this lens assists with explaining the dynamic, interrelated context-specific conceptualisation of human security found within the given research. Furthermore, it could be a valuable framework for understanding how individuals and groups perceive security as a situation or crisis develops. Lastly, this theory supports the suggestion that the proximal-distal bands of human security do not change in a pandemic – what is important remains stable – what does change, or reassemble, is people's perceptions of their ability to attain different security items within the socio-material context.

Limitations

It is acknowledged that the online nature and chosen recruitment method limited the sample representativeness and introduced inherent selection bias within the given research. Using a Facebook recruitment method allowed for a widespread questionnaire distribution; however, it did not permit management over how representative the sample was of the general population. The author attempted to improve the sample representability by engaging with a wide range of Facebook community groups across various regions in Aotearoa New Zealand. However, only those individuals who had access to a device linked to the internet, had a Facebook account, logged in during the data collection period, saw an advert for the research, and chose to respond to the survey were included. Consequently, the sample may under-represent those less privileged people who do not have access to a device or the internet. On the other hand, individuals who felt that the subject of well-being held some importance (possibly as they were experiencing difficulties) might have had a greater likelihood of engaging with the research.

The selection method resulted in a non-probability, convenience sample not representative of the Aotearoa New Zealand population. While this limits the generalisability and application of results, academics have argued that a sample of this nature, collected via an online means, is appropriate for exploratory research examining emerging social and policy-relevant issues as it can convey within a relatively quick timeframe, whether a particular phenomenon exists and the characteristics of this phenomenon (Lehdonvirta et al., 2020).

A further limitation is that human security data for both time points were collected simultaneously. Therefore, participants provided information on whether they felt they had each of the securities before COVID-19, approximately 18 months after the first case of COVID-19 was detected in Aotearoa New Zealand. It is plausible that the situation participants were experiencing when they completed the questionnaire may have impacted their responses on the before pandemic items. Although the before COVID-19 security scale responses may need to be interpreted with some caution, they provided valuable insight into the ability of the Security Staircase scale to detect differences in security across changing situations and times.

Lastly, the well-being measures within the current research require some discussion. The World Happiness report initially had three items on the positive affect scale; however, due to a lack of data for one item (happiness), it was dropped from the 2021 World Happiness Report (Helliwell et al., 2021). To conduct direct comparisons, it was decided to use the 2-item measure within the current research, making it impossible to examine this scale's reliability. In addition, while life satisfaction has been considered a somewhat eudaimonic measure of well-being within the given research, it is not a direct measure of eudaimonic well-being (Deci & Ryan, 2008). Therefore,

eudaimonic well-being may not have been measured. Lastly, due to the cross-sectional design, the study could not measure participants' level of well-being before COVID-19 was detected and examine how the relationship between human security and well-being changed as the COVID-19 situation unfolded.

Future Research Directions

Although there is still room for improvements, this research indicates that subjective measures of human security have the potential for practical utility for policymakers and academics, which should be explored through further study. It is proposed that both the Adapted Security Staircase scale and Security Staircase scale are used together, as the addition of the ranked importance measure was critical in helping to identify gaps and provide guidance for the prioritisation of policies and responses to threats. The Adapted Security Staircase scale is a relatively short measure consisting of one rank-order item; therefore, it is unlikely to add extensive load for individuals completing the Security Staircase scale.

The author recommends that the current study is replicated using a longitudinal research design. Measuring the perceptions of the same group over time would provide a clear indication of how people's and groups' perceptions of (in)security change due to context and how these perceptions affect their well-being and happiness. Furthermore, this will give additional insight into the proximal-distal theory of human security and the level each security item sits. It is recommended that research of this nature is conducted within Aotearoa New Zealand, as well as other countries. For example, economically poorer nations, societies with a collectivist belief system, and non-English speaking countries. This would provide endorsement for using the Security Staircase scale and the Adapted Security Staircase scale across varying populations and nations. Furthermore, it would enable academics to examine the meaning attributed to security items across communities, countries, and situations to identify shared meaning.

A few changes to the measures, sample and design are suggested. Firstly, a larger sample is required, allowing differences between groups to be examined. Most between-group differences were no longer detected using a more conservative statistical method. It is possible that these differences exist but may not have been detectable due to the small number of participants within each group. Therefore, having more participants per group should enable the research to have enough power to detect between-group differences using more conservative statistical methods.

The sample is recommended to represent the general population in self-identified ethnicity and occupational status, as both previous research and the current study have identified differences in these groups. Māori are overrepresented in precarious work (Groot et al., 2017). Therefore, examining the interaction of these two variables on perceptions of human security may be

informative. When assessing self-identified ethnicity, it is recommended that participants have the option to select multiple ethnicities. Several participants in the current research reported difficulty selecting one as they identified with numerous ethnicities, such as Māori and New Zealand European/Pakeha. Those who identify as both Māori and New Zealand/Pakeha may differ in their perceptions of (in)security compared to those who identify as Māori or New Zealand European/Pakeha, which will provide an in-depth investigation of how (in)security is distributed across ethnicities. Furthermore, selecting multiple ethnicities will enable the sample to be compared to the New Zealand Census more efficiently to ensure representativeness.

Potential differences were also detected across age, personal, and household income. While these findings do not imply that these differences exist within the general population, they do show a degree of significance that warrants further inquiry. Examining income may give more insight into the relationship between precariousness and a perceived sense of security, as earning a living wage is a critical factor in attaining decent work (Carr et al., 2018; 2021). Lastly, it is recommended that gender is representative of the population to determine if the current research findings align with males' perceptions of (in)security. To further understand and provide richer detail of how various groups define the security items and (in)security within an examined context, it is suggested that qualitative analyses are extended to investigate differences between ethnicity and occupational status.

Future research should broaden the data collection method to capture individuals who may not have access to a device or the internet, enabling investigation of those more precarious groups of the population who may have different socio-economic factors and experiences with human security. It should also add a measure directly examining eudaimonic well-being to the existing life satisfaction, negative affect, and the three-item positive affect scales to provide a more holistic view of well-being.

Lastly, the qualitative meaning attributed to each security item supported the notion that human security and human rights are linked (UNGA, 2012). It is recommended that future research examines this relationship further to understand how these are linked and the impact they have on each other.

Implications for Conceptualising and Measuring Human Security

The research promotes the adoption of a broad, dynamic, context-specific, people-centred conceptualisation of human security, examining both core pillars and multiple security items to provide a comprehensive view of individuals, groups, and communities (in)security. By exploring this broad conceptualisation as a category of research, academics and policymakers can adopt a dynamic, context-specific conceptualisation of human security that reflects the time, place, and

society being studied and provides a way to move forward from the narrow vs broad definitional debate. Supporting a dynamic, context-specific conceptualisation does not infer that the definitions of the security items, and human security, are wholly determined by socio-economic factors and the context in which data is collected or that they do not have meaning independent of context (McDonald, 2002). The security items will likely have broadly shared meaning across different populations and situations. It is proposed that context plays a part in defining what is essential within that specific time and place and identifying any unique threats relevant to the situation or crisis.

The Security Staircase scale and Adapted Security scale adopt this broad conceptualisation of human security; they are genuinely people-centric, comprehensive measures examining multiple security items and pillars that could conceivably be translated to other countries, regions, or contexts—addressing the limitations of other subjective measures of human security. This study provided some promising indications of construct validity for the Security Staircase scale. Arguably, the simple, open-to-interpretation scale items offer a dynamic approach to conceptualising human security, allowing those individuals experiencing everyday threats to play a part in defining what the security items mean within their given context. While the author believes this to be a strength of the measure. It is plausible that others may critique this factor and argue that it limits the practical utility of the scale; if it is dynamic and the definition differs in each application, how do policymakers or academics know which areas of a security item to target? In response to this potential critique, it is essential to point out that the measure limits all possible security items to prioritising those areas ordinary people living with the everyday threats believe to be their most significant areas of insecurity, guiding where to begin in a crisis. It could be argued that two methodological approaches adopted within the current research contributed to providing further advice on specific threats within an area of insecurity. Firstly, understanding how participants defined the security items offered a wealth of information regarding what the securities meant within the given context and what areas of the security item were important or lacking. Secondly, examining the context in-depth concerning that security item guides areas that may be causing insecurity.

The Security Staircase scale provided a more detailed, rich, and complex view of human security compared to macro-objective measures. It identified insecurity within a nation and between different groups within the country that had previously been deemed to have a high level of human security when measured using macro measures (for example, Werthes et al., 2011). While this offers support for adopting a subjective approach to measuring human security, it is not suggested that subjective measures replace objective measures. It is believed that each has a part to play in

investigating human security; subjective measures could supplement existing macro measures to help provide a more holistic overview of human security.

Practical Applications

Although further research is required, this study indicated that the Security Staircase scale, in conjunction with the Adapted Security Staircase scale, might have vast possibilities for application. They may be readily applied within a particular situation or following an event to examine what individuals, groups and communities living within the context perceive as their areas of (in)security to guide initial policy creation and prioritisation. Then following the implementation of the policy, the quick and context-sensitive nature of the measures would make them an excellent tool to evaluate the effectiveness of the policy in reducing perceptions of insecurity. It is important to note that these measures provide information on areas of insecurity and prioritisation; they cannot be applied to identify the particular policy that should be used to address the areas of insecurity or the most appropriate actor for dealing with these threats (Carr et al., 2020).

Conceivably the measures could be applied to the Aotearoa New Zealand COVID-19 context to identify insecurity and policy gaps to guide policy development and prioritisation within these critical areas. The measures could then be applied periodically as the situation unfolds to show the change in people's perceptions of security and evaluate the effectiveness of policies, restrictions, and mandates in decreasing subjective insecurity. For example, following the movement between alert levels, vaccine mandates, travel restrictions being implemented or lightened, borders being opened or closed etc.

Following further research, these measures may be practical tools in identifying structural inequalities within human security issues and evaluating the effectiveness of policies and distribution of resources on the sense of security of different groups. The Aotearoa New Zealand government has been internationally praised for their response to the COVID-19 pandemic (Cousins, 2020; Kronast, 2020; Te One & Clifford, 2021). However, it has been criticised within Aotearoa for its 'one-size-fits-all' approach (Te Rōpū Whakakaupapa Urutā, 2020). Specifically, for failing to engage and partner effectively with Māori in developing a response plan (Jones, 2020; McLeod et al., 2020; Te Rōpū Whakakaupapa Urutā, 2020) and for focusing solely on a western epidemiology approach to guide decision-making, dismissing Indigenous knowledge and theories (Cormack & Paine, 2020). As Māori may have a different experience with every day (in)security, the Security Staircase scale and Adapted Security Staircase scale may be applied to assess the needs of Māori and the effectiveness of policies and mandates in addressing insecurity for both Māori and New Zealand Europeans within the given context. There is a risk that targeting an approach toward a specific group may cause a decrease in another group's level of security (Hodgetts et al., 2022).

Therefore, applying the Security Staircase scale not only to identify the areas of insecurity initially but to examine any changes in the level of (in)security following the implementation of policies or agendas is vital.

Conclusion

For human security to be genuinely people-centred, research must be committed to placing ordinary people, their well-being, and perceptions of (in)security at the centre of understanding threats and areas of insecurity within their everyday lives. The Security Staircase scale, alongside the Adapted Security Staircase scale, are subjective measures that can provide people with a voice to identify threats and quantify their human security needs within a specific context, which academics and policymakers can use to help guide policy creation, prioritisation, and evaluation. This research has contributed to the ongoing definitional debates by demonstrating that policy-relevant information, including prioritisation, can be collected when examining a broad conceptualisation of human security as a category of security studies.

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 Figure 1. A Matrix of Security Studies on page 98

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Appendix B: Alert Levels

New Zealand COVID-19 Alert Levels Summary

Unite
against
COVID-19

- The Alert Levels are determined by the Government and specify the public health and social measures to be taken in the fight against COVID-19. Further guidance is available on the [Covid19.govt.nz](https://covid19.govt.nz) website.
- The measures may be updated based on new scientific knowledge about COVID-19, information about the effectiveness of control measures in New Zealand and overseas, or the application of Alert Levels at different times (e.g. the application may be different depending on if New Zealand is moving down or up Alert Levels).

- Different parts of the country may be at different Alert Levels. We can move up and down Alert Levels.
- Services including supermarkets, health services, emergency services, utilities and goods transport will continue to operate at any level. Employers in those sectors must continue to meet health and safety obligations.
- Restrictions are cumulative (e.g. at Alert Level 4, all restrictions from Alert Levels 1, 2 and 3 apply).

Updated 14 December 2020

ELIMINATION STRATEGY – New Zealand is working together to eliminate COVID-19

Alert Level	Risk Assessment	Range of Measures (can be applied locally or nationally)
Level 4 – Lockdown Likely the disease is not contained	<ul style="list-style-type: none"> • Sustained and intensive community transmission is occurring. • Widespread outbreaks. 	<ul style="list-style-type: none"> • People instructed to stay at home in their bubble other than for essential personal movement. • Safe recreational activity is allowed in local area. • Travel is severely limited. • All gatherings cancelled and all public venues closed. • Businesses closed except for essential services (e.g. supermarkets, pharmacies, clinics, petrol stations) and lifeline utilities. • Educational facilities closed. • Rationing of supplies and requisitioning of facilities possible. • Reprioritisation of healthcare services.
Level 3 – Restrict High risk the disease is not contained	<ul style="list-style-type: none"> • Multiple cases of community transmission occurring. • Multiple active clusters in multiple regions. 	<ul style="list-style-type: none"> • People instructed to stay home in their bubble other than for essential personal movement – including to go to work, school if they have to, or for local recreation. • Physical distancing of two metres outside home, or one metre in controlled environments like schools and workplaces. • People must stay within their immediate household bubble, but can expand this to reconnect with close family / whānau, or bring in caregivers, or support isolated people. This extended bubble should remain exclusive. • Schools (years 1 to 10) and Early Childhood Education centres can safely open, but will have limited capacity. Children should learn at home if possible. • People must work from home unless that is not possible. • Businesses cannot offer services that involve close personal contact, unless it is a supermarket, primary produce retailer, pharmacy, petrol station or hardware store providing goods to trade customers, or it is an emergency or critical situation. • Other businesses can open premises, but cannot physically interact with customers. • Low risk local recreation activities are allowed. • Public venues are closed (e.g. libraries, museums, cinemas, food courts, gyms, pools, playgrounds, markets). • Gatherings of up to 10 people are allowed but only for wedding services, funerals and tangihanga. Physical distancing and public health measures must be maintained. • Healthcare services use virtual, non-contact consultations where possible. • Inter-regional travel is highly limited (e.g. for critical workers, with limited exemptions for others). • People at high risk of severe illness (older people and those with existing medical conditions) are encouraged to stay at home where possible, and take additional precautions when leaving home. They may choose to work.
Level 2 – Reduce The disease is contained, but the risk of community transmission remains	<ul style="list-style-type: none"> • Limited community transmission could be occurring. • Active clusters in more than one region. 	<ul style="list-style-type: none"> • People can reconnect with friends and family, and socialise in groups of up to 100, go shopping, or travel domestically, if following public health guidance. • Keep physical distancing of two metres from people you don't know when out in public or in retail stores. Keep one metre physical distancing in controlled environments like workplaces, where practicable. • No more than 100 people at gatherings, including weddings, birthdays and funerals and tangihanga. • Businesses can open to the public if following public health guidance including physical distancing and record keeping. Alternative ways of working encouraged where possible. • Hospitality businesses must keep groups of customers separated, seated, and served by a single person. Maximum of 100 people at a time. • Sport and recreation activities are allowed, subject to conditions on gatherings, record keeping, and – where practical – physical distancing. • Public venues such as museums, libraries and pools can open if they comply with public health measures and ensure 1 metre physical distancing and record keeping. • Event facilities, including cinemas, stadiums, concert venues and casinos can have more than 100 people at a time, provided that there are no more than 100 in a defined space, and the groups do not mix. • Health and disability care services operate as normally as possible. • It is safe to send your children to schools, early learning services and tertiary education. There will be appropriate measures in place. • People at higher-risk of severe illness from COVID-19 (e.g. those with underlying medical conditions, especially if not well-controlled, and seniors) are encouraged to take additional precautions when leaving home. They may work, if they agree with their employer that they can do so safely. • Face coverings required on public transport and aircraft (but not inter-island ferries) – school buses and children under 12 are exempt along with passengers in taxis or ride share services and people with disabilities or mental health conditions.
Level 1 – Prepare The disease is contained in New Zealand	<ul style="list-style-type: none"> • COVID-19 is uncontrolled overseas. • Sporadic imported cases. • Isolated local transmission could be occurring in New Zealand. 	<ul style="list-style-type: none"> • Border entry measures to minimise risk of importing COVID-19 cases. • Intensive testing for COVID-19. • Rapid contact tracing of any positive case. • Self-isolation and quarantine required. • Schools and workplaces open, and must operate safely. • No restrictions on personal movement but people are encouraged to maintain a record of where they have been. • No restrictions on gatherings but organisers encouraged to maintain records to enable contact tracing. • Stay home if you're sick, report flu-like symptoms. • Wash and dry hands, cough into elbow, don't touch your face. • No restrictions on domestic transport – avoid public transport or travel if sick. • No restrictions on workplaces or services but they are encouraged to maintain records to enable contact tracing. • QR codes issued by the NZ Government must be displayed in workplaces and on public transport to enable use of the NZ COVID Tracer App for contact tracing.

Unite against COVID-19. (2020). *Summary table of the COVID-19 Alert Levels: Updated 14 December 2020.*

<https://covid19.govt.nz/assets/resources/tables/COVID-19-alert-levels-summary.pdf>. Copyright CC-BY-NC Licence, content can be re-used for non-commercial purposes with proper attribution.

Appendix C: Timeline of Key Events

Timeline of Key Events and Aotearoa New Zealand Government's Response to the COVID-19 Pandemic

Date	Event
2019	
31 December	The WHO is informed about cases of COVID-19 in Wuhan, China. ¹
2020	
30 January	Aotearoa New Zealand Government charts a flight to evacuate New Zealanders from Wuhan, China. ¹
3 February	The government implemented mandatory 14-day isolation for travellers from China. ¹
28 February	The first COVID-19 case was reported in Aotearoa New Zealand. ² Border restrictions were implemented for people arriving from Iran. ¹
1 March	14-day self-isolation was extended to those arriving from northern Italy and South Korea. ¹
11 March	WHO declared COVID-19 a global pandemic. ³
14 March	The Government extended the mandatory 14-day isolation to all people arriving in Aotearoa New Zealand, save those entering from the Pacific. ⁴
16 March	The government announced that tourists who failed to self-isolate for 14-days would be deported. ¹
17 March	The government announced a \$12.1 billion package to cushion the impact on the economy. ¹
19 March	National borders were closed to all except Aotearoa New Zealand citizens and permanent residents. Indoor gatherings were limited to 100 people. ¹
21 March	The Government introduced an Alert Level system with four tiers, and they advised that Aotearoa New Zealand was at Alert Level 2. ⁵
23 March	Aotearoa New Zealand had moved to Alert Level 3, and the government announced that Aotearoa New Zealand would move to Alert Level 4 in 48 hours. ⁶
25 March	At 11.59 pm, Aotearoa New Zealand moved to Alert Level 4, and a state of emergency was declared. ¹
29 March	Aotearoa New Zealand, reported its first COVID-19-related death. ¹
9 April	Managed isolation facilities were introduced amid concerns that people entering Aotearoa New Zealand were not self-isolating. From this date, all those entering Aotearoa New Zealand were held in managed isolation facilities for 14 days. ⁷
27 April	At 11.59 pm Aotearoa New Zealand moved to Alert Level 3. ¹
4 May	For the first time since the 16 th of March, no new cases were reported in Aotearoa New Zealand. ¹
13 May	At 11.59 pm Aotearoa New Zealand moved to Alert Level 2. ¹

20 May	The COVID-19 tracer app was launched, and people were instructed to download and scan Quick Response (QR) codes in the community. ⁸
8 June	There were no active cases of COVID-19 in Aotearoa New Zealand. At 11.59 pm, Aotearoa New Zealand moved to Alert Level 1. ⁹
16 June	Two new COVID-19 cases were announced following 24-days of no new cases being identified in Aotearoa New Zealand. ¹
12 August	At 12 noon, the Auckland region moved to Alert Level 3, and the rest of Aotearoa New Zealand moved to Alert Level 2. ⁹
30 August	At 11.59 pm, Auckland moved to Alert Level 2.5, which was Alert Level 2 with additional travel and gathering restrictions. The rest of Aotearoa New Zealand remained at Alert Level 2. ⁹
21 September	At 11.59 pm, all regions, except Auckland, moved to Alert Level 1. ⁹
23 September	At 11.59 pm, the Auckland region moved to Alert Level 2. ⁹
7 October	At 11.59 pm, the Auckland region joined the rest of Aotearoa New Zealand at Alert Level 1. ⁹
17 October	Aotearoa New Zealand General Election took place, Labour Party won, and Jacinda Ardern was elected to serve a second term. ¹⁰
18 November	From 11.59 pm, it was mandatory to wear masks on all domestic flights in Aotearoa New Zealand, as well as public transport originating in the Auckland region. ¹¹

2021

15 January	Negative COVID-19 test 72 hours prior to boarding flights required for those departing UK and USA who are due to land after 11.59 pm. ¹²
25 January	The requirement of a negative COVID-19 test at least 72 hours before boarding was extended to flights from all countries except Australia, Antarctica and most Pacific Islands. ¹³
3 February	Medsafe approved Pfizer/BioNTech COVID-19 vaccine, ¹⁴
10 February	The Government provided formal approval for using the Pfizer/BioNTech COVID-19 vaccine in Aotearoa New Zealand. ¹⁵
14 February	At 11.59 pm, the Auckland region moved to Alert Level 3, and the rest of Aotearoa New Zealand moved to Alert Level 2. ⁹
17 February	At 11.59 pm, Auckland moved to Alert Level 2 and the rest of Aotearoa New Zealand moved to Alert Level 1. ⁹ The Government announced that masks were mandatory on all public transport in Aotearoa New Zealand. ¹⁶
22 February	At 11.59 pm, the Auckland region joined the rest of Aotearoa New Zealand at Alert Level 1. ⁹
28 February	At 6.00 am, the Auckland region moved to Alert Level 3, and the rest of Aotearoa New Zealand moved to Alert Level 2. ⁹
7 March	At 6.00 am, Auckland moved to Alert Level 2, and the rest of Aotearoa New Zealand moved to Alert Level 1. ⁹
10 March	The Government announced the COVID-19 vaccine rollout plan, outlining a 3-4 month rollout targeting those groups who were determined to be most at risk. ¹⁷

12 March	At 12 noon, the Auckland region joined the rest of Aotearoa New Zealand at Alert Level 1. ⁹
19 April	Quarantine-free travel commenced with Australia. ¹⁸
28 April	The Government introduced a “Very High Risk Country” category, where further travel restrictions were enforced for countries in this category. Countries include India, Brazil, Papua New Guinea, and Pakistan. ¹⁹
30 April	COVID-19 Public Health Response (Vaccinations) Order 2021 came into effect at 11.59 pm. All MIQ workers and many high-risk border workers were mandated to have a COVID-19 vaccination and booster to work. If a person was unable to vaccinate, they required a medical exemption. ²⁰
17 May	Quarantine-free travel commenced with the Cook Islands. ²¹
25 May	At 7.59 pm, quarantine-free travel with the state of Victoria, Australia, was paused after Melbourne announced five new cases of COVID-19. ²²
27 May	Any people who had visited locations of interest in the greater Melbourne area could not travel to Aotearoa New Zealand, within 14 days of exposure. Anyone who had visited Melbourne since May 20 and had returned to Aotearoa New Zealand, was required to self-isolate until they produced a negative COVID-19 test. ²³
22 June	At 11.59 pm, quarantine-free travel with the state of New South Wales, Australia, was paused after cases of COVID-19 were identified in Sydney. Any people who had visited locations of interest in the greater Sydney area could not travel to Aotearoa New Zealand, within 14 days of exposure. Anyone who had returned to Aotearoa New Zealand was required to self-isolate until they produced a negative COVID-19 test. ²⁴
23 June	Confirmed that a person with COVID-19 visited the wider Wellington area. Wellington, Wairarapa and Kāpiti Coast moved to Alert Level 2. ²⁵
26 June	At 10.30 pm, quarantine-free travel with Australia was paused due to multiple cases and outbreaks within Australia. ²⁶
29 June	At 11.59 pm, the wider Wellington area moved to Alert Level 1. ⁹
4 July	At 11.59 pm, the travel pause with South Australia, ACT, Tasmania, and Victoria was lifted. All passengers are required to undergo pre-departure COVID-19 testing. ²⁷
9 July	At 11.59 pm, the travel pause with Western Australia and Northern Territory was lifted. All passengers are required to undergo pre-departure COVID-19 testing. Managed flights from Queensland, Australia were commenced for people who ordinarily reside in Aotearoa New Zealand. ²⁸
14 July	At 11.59 pm, the expanded Vaccination Order took effect, mandating most border workers to be vaccinated. ²⁰
16 July	At 1.59 am, anyone who had been in the State of Victoria could not travel to Aotearoa New Zealand. ²⁹
20 July	At 11.59 pm, travel with South Australia was paused. ³⁰
23 July	At 11.59 pm, quarantine-free travel with all of Australia was suspended for a minimum of 8 weeks. Managed return flights to Aotearoa New Zealand ran, for the first seven days for those who permanently reside in Aotearoa

New Zealand. Those travelling from New South Wales were required to enter managed isolation facilities. Those travelling from Victoria were required to self-isolate and return a negative COVID-19 test 3 days into isolation. All were required to produce a negative COVID-19 test before departing Australia.³¹

17 August	The first community case of COVID-19 was detected in Aotearoa New Zealand, in several months. Aotearoa New Zealand moved to Alert Level 4 for a minimum of three days, with Auckland and Coromandel remaining at Alert Level 4 for a minimum of seven days. ³²
18 August	It was confirmed that the COVID-19 case is of the Delta variant. Ten new community cases were identified. ³³
31 August	At 11.59 pm, all regions South of Auckland moved to Alert Level 3. Auckland and Northland remained at Alert Level 4. There were 49 new cases, all located in Auckland. Bringing the total number of active cases from the Delta community outbreak to 612. ³⁴
2 September	At 11.59 pm, Northland moved to Alert Level 3. The Auckland region remained at Alert Level 4. A total of 49 new cases had been identified, all located in Auckland. A total of 725 cases in the Delta outbreak. ³⁵
7 September	At 11.59 pm, all regions outside of Auckland moved to Alert Level 2, and Auckland remained at Alert Level 4. Changes were made to Alert Level 2 with wearing face coverings being expanded to retail businesses and public facilities. In addition, limits were implemented on the number of people on public transport. There are 21 new community cases all in Auckland, bringing the total number of cases in the Delta outbreak to 841. ³⁶
9 September	From 11.59 pm, all essential workers crossing the border between Auckland and the surrounding regions were required to show evidence of a negative COVID-19 test within the last seven days. ³⁷ There are 13 new cases, all located in Auckland. The total number of cases linked to the Delta community outbreak is now 868. ³⁸
14 September	Auckland remains at Alert Level 4, while the rest of Aotearoa New Zealand remains at Alert Level 2. There are 15 new community cases, all within the Auckland region. The total number of cases reported within the Delta community outbreak is 970. Of these, 397 people have recovered. ³⁹

¹Strongman (2020), ²Ministry of Health (2020), ³WHO (2020), ⁴Arden (2020), ⁵Arden (2020a), ⁶Arden (2020b),

⁷Managed Isolation and Quarantine (2022), ⁸Ministry of Health (2020a), ⁹Unite against COVID-19 (2022),

¹⁰Electoral Commission (2020), ¹¹Hipkins (2020), ¹²Hipkins (2021), ¹³Hipkins (2021a), ¹⁴Arden and Hipkins (2021), ¹⁵Hipkins (2021b), ¹⁶Arden et al. (2021), ¹⁷Hipkins (2021c), ¹⁸Arden and Hipkins (2021a), ¹⁹Hipkins (2021d), ²⁰Ministry of Health (2022a), ²¹Arden (2021), ²²Hipkins (2021e), ²³Hipkins (2021f), ²⁴Hipkins (2021g),

²⁵Unite against COVID-19 (2021), ²⁶Hipkins (2021h), ²⁷Hipkins (2021i), ²⁸Hipkins (2021j), ²⁹Hipkins (2021k),

³⁰Hipkins (2021l), ³¹Arden and Hipkins (2021b), ³²Arden and Bloomfield (2021), ³³Arden and Bloomfield (2021a), ³⁴Arden and Bloomfield (2021b), ³⁵Arden and Bloomfield (2021c), ³⁶Arden and Bloomfield (2021e),

³⁷Arden and Bloomfield (2021d), ³⁸Arden and Bloomfield (2021f), ³⁹Arden and Bloomfield (2021g).

Appendix D: Supplementary Methodological Information

Power Analysis Protocol Detailing Required Minimum Sample Size

G*Power 3.1

Central and noncentral distributions Protocol of power analyses

```
[1] -- Thursday, July 15, 2021 -- 10:48:49
Exact - Correlation: Bivariate normal model

Options:    exact distribution

Analysis:   A priori: Compute required sample size
Input:      Tail(s)                = Two
            Correlation  $\rho$  H1       = 0.3
             $\alpha$  err prob           = 0.05
            Power (1- $\beta$  err prob) = 0.90
            Correlation  $\rho$  H0       = 0
Output:     Lower critical r        = -0.1856685
            Upper critical r        = 0.1856685
            Total sample size       = 112
            Actual power            = 0.9008078
```

Test family Statistical test

Exact Correlation: Bivariate normal model

Type of power analysis

A priori: Compute required sample size - given α , power, and effect size

Input parameters

Determine Tail(s) Two

Correlation ρ H1 0.3

α err prob 0.05

Power (1- β err prob) 0.9

Correlation ρ H0 0

Output parameters

Lower critical r -0.1856685

Upper critical r 0.1856685

Total sample size 112

Actual power 0.9008078

Options X-Y plot for a range of values Calculate

Massey University Human Ethics Northern Committee Approval Letter



Date: 14 July 2021

Dear Emma Peden

Re: Ethics Notification - **NOR 21/30 - What is the meaning of Human Security in the middle of a pandemic?**

Thank you for the above application that was considered by the Massey University Human Ethics Committee: Human Ethics Northern Committee at their meeting held on Wednesday, 14 July, 2021.

Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely



Professor Craig Johnson
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

Facebook Adverts

Hi everyone, my name is Emma. I'm currently undertaking a research project for my Master's thesis in Psychology at Massey University.

If you are 18-years or older and reside in Aotearoa New Zealand, I would like to invite you to participate in my online survey exploring how security is experienced in everyday life.

To show appreciation to those who take part, there is a prize draw for the chance to win one of eight \$40.00 gift vouchers.

Click the following link to find out more information and to access the survey

https://massey.au1.qualtrics.com/jfe/form/SV_1NPRk6nlwKDJhc

Please share this post with your friends and family, as well as any groups you think might be interested.

Thanks so much!

What does security
mean to you?



UNIVERSITY OF NEW ZEALAND



Kia ora everyone, I hope you're all safe and well.

I'm currently undertaking a research project for my Master's in Psychology at Massey University.

If you are 18-years or older and live in Aotearoa New Zealand, I would like to invite you to participate in my online survey exploring how security is experienced in everyday life.

To thank those who take part, there is a prize draw for the chance to win one of eight \$40.00 gift vouchers.

Please click the following link to find out more information and to access the survey

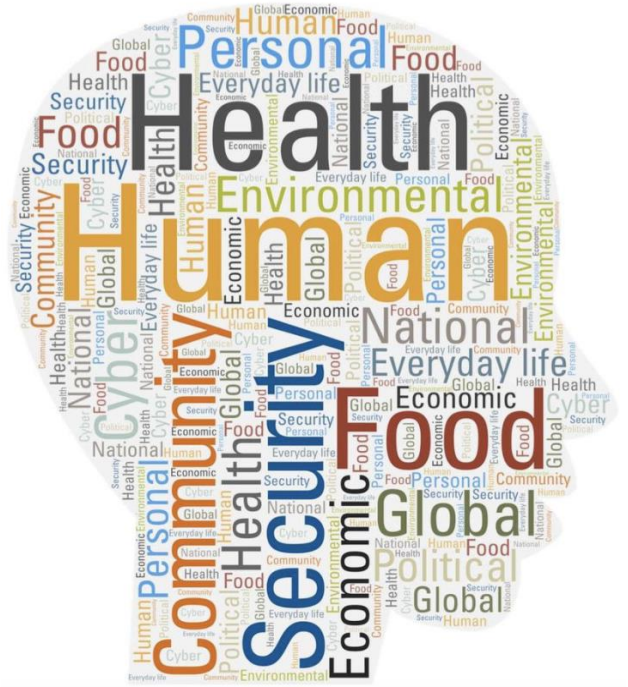
https://massey.au1.qualtrics.com/jfe/form/SV_bklm6ZBZtcAoj0a

Thank you so much!

What does security
mean to you?



UNIVERSITY OF NEW ZEALAND



Information Sheet



What is the meaning of Human Security in the middle of a pandemic?

Information Sheet

Who is doing this research?

Kia ora, my name is Emma Peden. I am a Master's student in the School of Psychology at Massey University, New Zealand. As part of this degree, I am undertaking a research project leading to a thesis. My co-supervisors for this project are Professor Stuart Carr and Doctor Veronica Hopner, who are academic staff members within the School of Psychology at Massey University.

What is the purpose of this research?

The current study adopts a human-centred approach to security, by focusing on how security is experienced in everyday life, in response to calls from the United Nations to do so. The research will examine ten forms of security: Personal, Health, Food, Cyber, Community, Economic, Environmental, Political, National and Global Security.

New Zealanders are placed at the centre of the research, to understand what security means to people in the different aspects of their daily lives. The research aims to explore the level of security/insecurity New Zealanders are currently experiencing, whether they have attained the securities they perceive as most important and if their level of security is related to their perceived happiness.

Understanding the meaning and importance people attach to their own security may help guide government policy to maximise social protection for people residing in Aotearoa New Zealand.

Who can take part?

People aged 18-years and older, living in Aotearoa New Zealand, are invited to participate in this research.

What will I be asked to do?

Your participation in this study involves completing a set of online questionnaires that look at what different securities mean to you. These questionnaires include a mixture of closed-ended and open-ended questions. It is expected that the survey will take approximately 15-20 minutes to complete. Upon completion, you will be given the opportunity to enter a prize draw to win one of eight \$40.00 vouchers to spend at Farmers, as a token of our appreciation (koha) for the time you have invested.

How will my responses be used and stored?

Any responses you provide will be completely anonymous. These anonymous responses will be used as the basis of my thesis, which will be submitted to the School of Psychology for marking and deposited in the University Library. In addition, the results may be published in an academic forum. In any publication, information will be presented in such a way that you cannot be identified.

Completion and return of the questionnaire implies consent. If you decide to take part in this project you can choose to skip or not respond to any of the questions asked, ask any questions about the study, and cease responding to the survey at any time. However, you should be aware that it will not be possible to retract any answers or information once you submit the survey, as participation is anonymous and participants cannot be linked to their responses. All information will be stored in a secure and confidential fashion, and only used for the purposes of this research. Upon completion of the research project, you will be sent a summary of the project findings.

Contact Information

If you have any questions or would like to receive further information about this research, please contact the researcher and/or supervisors.

Researcher

Emma Peden

Emma.Peden.1@uni.massey.ac.nz

Supervisors

Prof Stuart Carr

Email: s.c.carr@massey.ac.nz

Phone: 09 414 0800 ext. 43108

Dr Veronica Hopner

Email: V.Hopner@massey.ac.nz

Phone: 09 414 0800 ext. 43101

**Te Kunenga
ki Pūrehuroa**

Massey University School of Psychology – Te Kura Hinengaro Tangata

Auckland, New Zealand

T +64 9 414-0800 ext 43116 : W psychology.massey.ac.nz

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application NOR

21/30.

If you have any concerns about the conduct of this research, please contact A/Prof Fiona Te Momo,

Chair, Massey University Human Ethics Committee: Northern,

telephone 09 414 0800, x 43347, email humanethicsnorth@massey.ac.nz.

Support Services Information



Support Services

If you find that participating in this study causes you any distress, please see a list of support services below which may be of assistance (these, along with additional services, will be listed at the end of the survey):

- For support with anxiety, distress or mental wellbeing, call or text [1737](#) to talk with a trained counsellor for free, 24 hours a day, 7 days a week.
[Find out more about Need to Talk? 1737](#)
- Lifeline — [0800 543 354](#) (0800 LIFELINE) or free text [4357](#) (HELP)
[Find out more about Lifeline](#)

Online Survey



Please ensure you are eligible to participate in the survey before commencing.
You must be **18-years or older and residing in Aotearoa New Zealand**.

Security

Security is important to most people in everyday life, and takes many forms. This research is really just exploring what those forms might look like. We are seeking to find out what security means to people in the different aspects of their daily lives.

Below, and on the following 3 pages, are ten possible types of security, please describe in your own words what each of these securities might mean to you. Feel free as well to say if they do not mean anything in particular, or seem unfamiliar.

There are no right or wrong answers. You can write as little or as much as you would like. Please try not to leave any question unanswered.

What does Economic security mean to you?

What does Personal security mean to you?

What does Food security mean to you?

What does Political security mean to you?

What does Community security mean to you?

What does Cyber security mean to you?

What does Global security mean to you?

What does National security mean to you?

What does Health security mean to you?

What does Environmental security mean to you?

Below are the ten security items you have just defined. Please assess (on the whole) whether you **currently** have, or not, each of the different types of security.

Also assess (on the whole) whether you had, or not, each of the different types of security **prior to COVID-19 being identified in Aotearoa New Zealand** (prior to the 28th of February 2020).

Answer 'Yes' if you feel that you have/had a particular security or 'No' if you feel that you do not/did not have a particular security.

Please try not to leave any question unanswered.

	Currently		Prior to COVID-19	
	Yes	No	Yes	No
Food security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Political security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Economic security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
National security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cyber security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Global security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Below are the ten security items you have just defined. **Please arrange them in order of their importance to you using drag and drop.** Study the list carefully and pick out the one security which is most important to you.

Drag this security to the top of the list. A "1" will appear next to the item identifying it as your most important security. Then pick out the security which is second most important to you. Drag it to the second place in the list, a "2" will appear next to the security you have just moved. Do the same for each remaining security, the security that is least important should appear at the bottom of the list and have the number 10 next to it.

Work slowly and think carefully. If you change your mind, feel free to change your answers by dragging the security up or down the list.

Health security

Personal security

Cyber security

Environmental security

Economic security

National security

Political security

Global security

Food security

Community security



This research is interested in exploring whether security is related to well-being.

Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you.

On which step of the ladder would you say you personally feel you stand at this time?

10 - Best possible life

9

8

7

6

5

4

3

2

1

0 - Worst possible life

Now, please think about yesterday, from the morning until the end of the day. Think about where you were, what you were doing, who you were with, and how you felt.

Did you smile or laugh a lot yesterday?

Yes

No

Did you experience the following feelings during A LOT OF THE DAY yesterday?

How about Anger?

Yes

No

How about Worry?

Yes

No

How about Enjoyment?

Yes

No

How about Sadness?

Yes

No

Demographics

Previous research has indicated that Human Security is perceived by groups in Aotearoa New Zealand in different ways. Answering the below information will enable us to explore if the meaning and importance of security differs between groups in Aotearoa New Zealand.

The following questions are not mandatory; however, it would be helpful for the research if you answer these questions.

How old are you?

What region of New Zealand do you reside in?

Which ethnic group do you belong to?

(If your answer includes more than one ethnic group, please indicate which one you consider to be your primary ethnicity).

New Zealand European/ Pākehā

New Zealand Māori

Pacific Islander

Asian

Other

What is your gender?

Male

Female

Gender diverse

What is your occupational status?

Unemployed

Student

Employed casually

Employed part-time

Employed full-time

Retired

What is your Job title?

What is your estimated annual **personal** income (before tax)?

How many people reside in your household?

What is your estimated annual **household** income (before tax)?

Debriefing Information



Debriefing

Kia ora! Thank you for participating in this study!

We appreciate your honesty and willingness to assist with this research. Your contribution is invaluable in understanding what different securities mean to people in their everyday lives in Aotearoa New Zealand.

The goal of this research is to understand the importance and meaning people apply to Human Security, and the ten components, within their daily lives. We aim to understand how secure/insecure people are currently feeling within Aotearoa New Zealand and whether this level of security relates to a person's level of happiness.

Understanding the meaning and importance people attach to their own security may help guide government policy to maximise social protection for people residing in Aotearoa New Zealand.

Support Services

We understand that examining securities and insecurities within your everyday life may be difficult. If you have found that participating in this study has caused you any distress, please see a list of support services below which may be of assistance:

- For support with anxiety, distress or mental wellbeing, call or text [1737](tel:1737) to talk with a trained counsellor for free, 24 hours a day, 7 days a week.
[Find out more about Need to Talk? 1737](#)
- Lifeline — [0800 543 354](tel:0800543354) (0800 LIFELINE) or free text [4357](tel:4357) (HELP)
[Find out more about Lifeline](#)

We have also included links to information on the Unite against COVID-19 website, as we are aware that the pandemic has caused disruption to the everyday lives of New Zealanders:

- [Te reo Māori COVID-19 support for individuals](#)
- [Contact a helpline](#)
- [Financial support](#)

We greatly value your participation in this research study and your willingness to share your thoughts. If you have any questions or concerns about the content of this survey, please email Emma.Peden.1@uni.massey.ac.nz.

Once you click on the Submit button, you will be transferred to an independent survey. Where you can enter your email address, if you wish to receive a summary of results and/or enter the draw to win a \$40.00 Farmers voucher.

Ngā mihi nui
Emma

Research Findings / Enter Prize Draw Survey



Thank you for your answers!

This section of the survey is separate from your earlier answers and provides you with the opportunity to enter the prize draw and receive a summary of the findings of this research project. If you choose to enter the prize draw and/or receive a copy of the findings, your email address will be held in a separate file and will in no way be linked to the responses you have provided throughout this study.

If you would like to enter the draw to win one of eight \$40.00 vouchers to spend at Farmers, please remember to give us your email address on the next page. A random selection of eight participants will be made, if you are successful you will be notified via email by the 30th of September 2021.

If you would like to receive the results of this research (available early 2022), please also indicate this on the next page and enter your email address.

If you wish to participate in the draw or receive a copy of the research findings, please click the >> **Next** button at the bottom of this page.

**Te Kunenga
ki Pūrehuroa**

Massey University School of Psychology – Te Kura Hinengaro Tangata
Auckland, New Zealand
T +64 9 414-0800 ext 43116 : W psychology.massey.ac.nz

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application NOR

21/30.

*If you have any concerns about the conduct of this research, please contact A/Prof Fiona Te Momo,
Chair, Massey University Human Ethics Committee: Northern,
telephone 09 414 0800, x 43347, email humanethicsnorth@massey.ac.nz.*



Would you like to receive a summary of the findings of this research project?

Yes

No

Do you wish to enter the draw to win a \$40 Gift Card from Farmers?

Yes

No

If you answered 'Yes' to receiving a summary of results OR entering the draw, please provide your email address.

Automatic Screen out Messages

Age Screen out Message



Thank you for your time. As you selected "17 years or younger" you do not meet the minimum age requirement for this study.
Your responses have not been saved as they cannot be used within the current research.

Regional Location Screen out Message



Thank you for your time. As you selected "I do not reside in Aotearoa New Zealand" you do not meet the location requirement for this study.
Your responses have not been saved as they cannot be used within the current research.

Detailed Description of Applied Inclusion and Exclusion Criteria

To satisfy inclusion criteria, participants who selected “17 years or younger” on the age question or “I do not reside in Aotearoa New Zealand” on the geographical location question were directed out of the survey, and their responses were discarded. This was managed by the Qualtrics Screen-Out Management tool (Qualtrics, 2022a). These respondents were presented with a message thanking them for their time and advising them that their responses would not be used as they do not meet the inclusion criteria. Two people were exited out of the survey and had their responses discarded due to not meeting the inclusion criteria. Both responses were submitted by the researcher when testing the survey.

Responses that were identified as having a Qualtrics status of 1 (preview), 2 (test), 8, 9 or 12 (possible spam/duplicate responses) were excluded during data processing (Qualtrics, 2022b). Six test responses made by the researcher were removed.

In addition, a total of 94 responses were recorded on the 12th of August between 02:00:04 and 02:00:32, on the 17th of August between 02:01:33 and 12:45:50 and on the 24th of August at 09:00:49 were identified as spam by the researcher and subsequently excluded. Similar answers were used across spam responses; in many cases, the answers did not match the questions.

Participants who missed an item on the Security Staircase scale (both Current and Prior to COVID-19 questions), Adapted Security Staircase scale, Life satisfaction, Positive affect and Negative affect measures described in the Measured variables section were excluded. Thirty-six respondents were excluded as they missed one or more items on these variables. Due to the high number of respondents and the low number of participants missing items, this approach was deemed acceptable.

Additional Qualtrics fraud and bot detection functionality was enabled following the influx of spam responses on the 12th and 17th of August 2021. This included an additional duplicate check examining the respondent’s browser and device, bot detection using Google’s invisible reCAPTCHA technology, highlighting candidates using IP addresses located outside Aotearoa New Zealand and a fraud score analysing a user’s browser, operating system, and location (Qualtrics, 2022c). Three participants were identified as possible duplicate respondents. After further examination, they were not deemed duplicates as previous attempts had only made it to the Support information page. Therefore, all three respondents were included in the analyses.

The reCAPTCHA score indicated that three participants were likely to be bots as they scored below 0.5 (Qualtrics, 2022c). All three respondents were excluded from the analyses.

Qualtrics identified two respondents using an IP address located outside Aotearoa New Zealand. As it is possible to be in Aotearoa New Zealand, and use an IP address outside the country,

this measure is not 100% accurate in determining location (Qualtrics, 2022d). Therefore, the responses from both participants were examined. The respondent using an IP located in the USA was included in the data analyses as data appears appropriate, and the respondent indicated that they reside in Aotearoa New Zealand, within the demographic information. The other respondent was excluded as they used an IP address located in Hong Kong and responded using Chinese characters. When these were translated to English, they did not match the questions.

Lastly, a response with a Qualtrics fraud score of 30 or more is likely to be fraudulent and a bot (Qualtrics, 2022c). One respondent scored above this threshold and was therefore removed from analyses.



Community Security



Environmental Security



National Security



Political Security



Appendix F: Human Rights Examples

Quotes for Universal Declaration of Human Rights by Security Scale Item.

Security scale item	Standard of living (Article 25)	Right to education (Article 26)	Right to employment (Article 23)	Freedom of movement (Article 13)	Freedom of expression (Article 19)	Right to religious beliefs (Article 18)	Right to vote (Article 21)
Personal security	Warm home for my whānau, food to feed my whānau, clothing to keep us dry and warm, reliable transport to get my whānau to school and work, heating during the winter months.	The right to work... The right to be educated.		Freedom of movement in a safe, stable and secure neighbourhood/city.	It means I am living in a way where I have choice and free will. Where I can be who I am without judgement or fear of being marginalised.		
Health security	Access to affordable healthcare, healthy housing and food.						
Food security	Food is a basic human right and food security means no person has to go to bed without a meal or the need to beg for food.						
Economic security	To have money to access all the things that as a human we have the right to access. Food, housing, education, clothing...		The right for everyone to receive a fair day's pay for a fair day's work, and to be able to live on that money.		Having enough money to exercise freedom and choice.		
Community security	Healthy community members who have access to housing, medical care, food, friendship and	Having the infrastructure to ensure our community is able to access basic needs.	A community of people with all the basic human rights [including] employment.	My community is safe, we are able to move about freely without threat of harm.	That people's of all ages, gender identities, sexual orientation, race and religion feel safe to choose to		

	community spaces/activities.	Schools, medical centre etc.		live their lives as they see fit (as long as they do not cause emotional, physical or psychological harm to others). That everyone can co-exist within a geographical area, living their own truths without fear of persecution.	
Environmental security	Having the resources I need to live comfortably, without unnatural toxic products; having adequate food, water, warmth and minimal risk of natural disasters.				
National security	The ability to know that we will be heard and listened to, supported, have access to strategy systems that will provide us with access to health, education, and living systems.	Living in a country where I am free and able to work...Have an economy that is always looking to grow and develop, even in times of recession.	NZ being safe as a whole. An ability to move freely and safely through the country, unity within our security providers (police, armed forces etc) to ensure safety.	Freedom of speech, and living in unity of diversity. Freedom of religious and faith choices, and behavioural, career, relationship choices.	To me, national security means the security of all New Zealanders living in New Zealand. Meaning...secure in our rights to freedom, secure in our right to vote.
Political security	Knowing the government will keep their promises, help fund much needed areas such as mental health, housing, food security.	That our statute-prescribed civic and human rights will be guaranteed. Given that they are already routinely violated (e.g. by the government's refusal to provide equal	Employment stimulation for all to not be left idle after school.	Trusting that I am in a society where I will not be subjected to intrusion, or violence, or incarceration because of my gender, beliefs, ethnicity, social status. And no one else will be treated that way, either.	The right to vote for whoever you want and the right to disagree with others with no consequences.

education to everyone...we're clearly behind on political security, too.							
Cyber security	A safe online environment where hackers, cyber bullies, trolls, scammers are being able to be identified and prosecuted so that I can freely move around in the online world without fear.						
Global security	The world acting in the best interest of everyone. No one should be without the basic rights of shelter, food, and access to healthcare.	Ideally, to have a world that promotes...education ...for all.	People worldwide have the necessities of life...gainful employment... Wealth is evenly distributed.	That there is freedom to travel (but not necessarily to immigrate).	Accept differences between each other without hostility but with understanding and a willingness to cooperate.	Having agreement on issues that relate to the basic human rights and needs that everyone should have regardless of race or religion.	Power sharing in an equitable way. The replacement of corrupt megalomaniacs with fairly elected governments who can/ will work towards reducing the disparity between the "haves" and "have nots" in the world.