The Experiences of a Multi-ethnic Group of Participants Engaging in Health and Wellness Coaching: results from the PREVENTS Study.

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Abstract

Globally, stroke is the second largest cause of death. Stroke can also lead to permenant disability. Stroke can impact individuals in various ways including an individual's physical, psychological, emotional, functional and cognitive domain. However, stroke is a preventable illness with associated risk factors (such as hypertension, diet and physical activity) that can be targeted in prevention. In terms of prevention, a combined high risk and population-wide strategies are recommended. Strategies can be implemented at an individual level, such as targeted health behaviour change via referrals to useful programs, and strategies can be implemented to the whole population (for example, smoking cessation programs; Feigin et al., 2016a).

HWC is widely utilized for the management of chronic disease. HWC focuses on the client and aims to elicit motivation for health behaviour change. Health coaching has been reported to be effective for CVD health in participants with coronary heart disease, in diabetes management; and in leading to better LDL cholesterol levels, fruit and vegetable intake and reducing tobacco use in participants. Although the efficacy of health coaching has been explored in ethnic minority communities, there is still limited supported for utilizing HWC for primary prevention in a multi-ethnic community. The PREVENTS study was conducted to evaluate the efficacy of HWC in a NZ multi-ethnic community for cardiovascular disease and stroke prevention. This was a randomized controlled trial (n=320) where HWC was implemented on participants in the intervention group versus a usual care group.

The current study is a qualitative study which aimed to explore participant experiences of HWC and whether the experiences differed by ethnicity. The current study recruited participants (n=8) from the intervention group of PREVENTS. Semi-structured, face-to-face interviews were conducted. An interpretive descriptive approach was utilized; and thematic analysis was used to analyse the data. Six final themes emerged from the current study: 1) Ethnicity/culture not directly relevant to health and wellbeing; 2) The importance of the coaching relationship; 3) Awareness of health; 4) Person-centered nature of coaching; 5) HWC was beneficial at a personal level; and 6) Practical strategies in HWC. The findings highlight that a culturally sensitive HWC intervention is essential when working within a multi-ethnic community in NZ.

The findings suggest that ethnic identity was not directly relevant to health and wellbeing although there appears to be indirect influences which were addressed in HWC. Participants felt their cultural needs were being met in HWC. The findings suggest that participants were receptive to a person-centered approach, where the coach is working from the client's agenda, and that this leads to health behaviour change. Personal issues were often addressed in HWC, and this seemed to be a part of the process of health behaviour change. This study emphasised the importance of the coaching relationship and how this contributes to the efficacy of HWC. This study found that practical strategies utilized in HWC was useful; and reported participants' awareness of health and how this has influenced health behaviour change. The current study is unique in highlighting these aspects of HWC in relation to health behaviour change, in a NZ multi-ethnic community, for cardiovascular disease and stroke prevention. It has also illustrated the importance of a culturally appropriate HWC intervention when addressing stroke and cardiovascular disease prevention in a multi-ethnic community.

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signature:

Date:

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Ethics Approval

For this study, ethics approval was obtained from the Health and Disability Ethics Committee (HDEC); approval number 16/174 (Appendix A). Ethics approval was obtained from AUT University Ethics Committee (AUTEC); approval number 11/297 (Appendix B). HDEC approval was received on the 16th May 2016 and the AUTEC approval was received on the 10th May 2016.

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Chapter 1 Introduction

1.1 Overview

Stroke is the second leading cause of death globally and the most common cause of disability worldwide and within New Zealand (NZ; Feigin et al., 2015). Globally, approximately, 25.7 million people survive with 75% of those becoming permanently disabled (Feigin et al., 2016a). A fifth of individuals, who have experienced a first ever stroke, are likely to live 15 years or more post stroke (Crichton, Bray, McKevitt, Rudd, & Wolfe, 2016). In terms of stroke incidence, rates have decreased by 42% in high income countries compared to low-middle income countries where rates have increased (Feigin, Krishnamurthi, Barber, & Arroll, 2014). Men tend to have a higher incidence of ischemic stroke than women with 133/100000 person-years for men versus 99/100000 person-years for women (Feigin, Norrving, & Mensah, 2017a). However, the risk of stroke is higher for women relative to men over the lifetime, essentially because women live longer than men (Norrving, 2014).

The impact of stroke can be long lasting and include a variety of impairments, including physical, mood, psychological, functional and cognitive impairment (Barker-Collo et al., 2016; Crichton et al., 2016). For example, Crichton and colleagues (2016) reported that there was a 67% prevalence at 10 years, and a 63.2% prevalence at 15 years, of mild to severe disability after the occurrence of stroke. 12 months after a stroke, a significant proportion (up to 75%) of people struggle with cognitive impairments which can affect functioning in an individual's life and have a wider effect on lifestyle processes such as returning to work and participation in daily activities (Barker-Collo et al., 2016). 10 years after the occurrence of stroke, 61% of individuals (as measured by the Montreal Cognitive Assessment) were observed to have post stroke cognitive impairment (Delavaran et al., 2017). Pathological fatigue can also occur in individuals after a stroke; pathological fatigue refers to tiredness that occurs, without engaging in tiring activities, which is not alleviated after resting (Hackett, Köhler, O'Brien, & Mead, 2014).

Emotional and mood issues can occur following a stroke. For instance, aggressive behaviours, such as a hitting or cursing, or milder forms where individuals have anger management issues; these are usually more prevalent than aggressive behaviours (Kim, 2017). Individuals can also experience emotional inconsistency after a stroke, which

could include disproportionate emotional reactions to situations, unstable emotions and sensitive to emotional changes (Hackett et al., 2014; Kim, 2017). There's much variability in terms of the occurrence of emotional inconsistency; studies have reported that 8% to 32% of individuals experience emotional consistency (Hackett et al., 2014). These emotional and mood issues are associated with decreased levels of functional outcome and can gave a significantly negative impact on the individual's quality of life (Kim, 2017).

In terms of psychological impairment, a five year follow-up study of 761 stroke survivors reported a 30% prevalance of depression with most individuals experiencing mild to moderate symptoms (28.65% and 49.5% respectively); and some individuals with severe symptoms (Ayis, Ayerbe, Crichton, Rudd, & Wolfe, 2016). Anxiety symptoms were reported by 24% of individuals who had a stroke; and 5 years following stroke, anxiety disorders were observed in 18% of stroke patients (Hackett et al., 2014). Hence, stroke is ultimately a chronic medical condition with outcomes that can last up to years following onset and affect various aspects of an individual's life (Ayis et al., 2016; Barker-Collo et al., 2016; Crichton et al., 2016).

Stroke is a highly preventable condition with associated modifiable risk factors (Feigin et al., 2016b; O'Donnell et al., 2010). The most significant risk factor for stroke is hypertension (O'Donnell et al., 2016). Ninety percent of stroke can be explained by modifiable risk factors including hypertension, smoking, abdominal obesity, diet, physical activity, diabetes mellitus, alcohol intake, psychosocial factors and apolipoproteins (O'Donnell et al., 2016; O'Donnell et al., 2010). Therefore, although stroke is a chronic condition, it is also a highly preventable condition.

The optimal method of reducing stroke burden is prevention. The target of primary prevention of stroke is addressing modifiable risk factors and doing so in an encompassing level so that individuals at all risk levels are targeted (Feigin et al., 2016b). A combination of high risk prevention and population-wide prevention strategies are recommended for reducing stroke burden. This would include the targeted behaviour change and implementation of various strategies (such as health professional's referrals to useful programs that can lead to behaviour change) for those with a high cardiovascular disease risk, as well as the implementation of strategies (for example, smoking cessation programs) to address risk at the population level (Feigin et al., 2016a).

Health and wellness coaching (HWC) is an emerging intervention for the management of chronic disease (Kivelä, Elo, Kyngäs, & Kääriäinen, 2014). The aim of HWC is to connect with clients to elicit their motivation, as opposed to an expert-driven approach, where clients are simply educated on how they can look after their health (Huffman, 2009). HWC is effective because it allows clients to recognize barriers to change; and to set viable goals, supported by a health coach who utilizes strategies such as active listening, open questions and feedback to create health behaviour change (Huffman, 2009; Kivelä et al., 2014). HWC has been effective in improving health behaviours, such as physical activity, smoking and improving diet (Kivelä et al., 2014). It has been reported that HWC was associated with decreased body mass index and body weight (Kivelä et al., 2014); and better low density lipoprotein (LDL) cholesterol levels in those who engaged in health coaching (Benson et al., 2018). HWC has also lead to better quality of life and decreased stress levels in individuals who has a chronic disease (Kivelä et al., 2014).

There is currently limited evidence for utilizing HWC for primary prevention in a multi-ethnic community (Mahon et al., 2018). The efficacy of health coaching for reducing hypertension in an African American population has been explored (Donahue et al., 2016). Health coaching has been examined within a South Asian sample; in this study, certain aspects of health behaviours, such as diet planning, has been tailored to the client's culture (Sathe et al., 2016). Other studies have examined the efficacy of health coaching for Type 2 diabetes management among Hispanic individuals (Baldwin, 2015); and for health behaviour change in individuals with Type 2 diabetes and/or coronary heart disease within Indigenous Australian individuals (Ski et al., 2015).

In order to explore the efficacy of HWC in preventing cardiovascular disease and stroke, Mahon et al. (2018) conducted a randomized controlled trial. This trial included participants who were allocated to four general ethnic groups: Maori, Pasifika, NZ European and Asian. For the current study, qualitative interviews will be conducted with participants from the intervention group of this clinical trial. The aim of the study is to examine participant experiences of the HWC intervention and whether experiences varied between the four ethnic groups.

1.2 Defining Stroke

According to the World Health Organization (WHO), stroke is defined as, "rapidly developed clinical signs of focal (or global) disturbance of cerebral function, lasting

more than 24 hours or leading to death, with no apparent cause other than of vascular origin" (Aho et al., 1980, pp 114). There is a need to refine this definition as there has been an improvement in what is known about the characteristic and timing of stroke; and how stroke is clinically recognized which now includes the use of imaging when diagnosing stroke (Sacco et al., 2013). Hence, Sacco et al. (2013) has included several definitions, based on the type of stroke, to broadly define stroke.

1.3 Epidemiology

Globally, stroke results in approximately 6.5 million deaths, and has led to 113 million disability-adjusted life-years (DALY's); DALY's measures population health in terms of the disability and mortality related to a disease (Feigin et al., 2016a; Feigin et al., 2016b). Mortality rates and DALY's from stroke has increased over the last thirty years, with a 20-25% increment of the proportional contribution of DALY's and deaths (caused by stroke) relative to other diseases (Feigin et al., 2016a).

Globally, over the past 30 years, there has been an increase in stroke burden (Feigin et al., 2017a). The absolute number of individuals who died due to stroke has increased; and the absolute number of individuals those who became disabled and survived a stroke has also risen. This increase is seen despite an overall reduction in the rate of mortality and DALY's within the same period (Feigin et al., 2017a). There was a prevalence of 7.3 million events for ischemic stroke in younger adults (20-64 years) and a prevalence of 3.7 million events for haemorrhagic stroke in 2013. It was noted this may have contributed to the rise in the prevalence, total deaths and DALY's for ischemic and haemorrhagic stroke between 1990 and 2013 (Feigin et al., 2017a).

In NZ, the prevalence of stroke in adults was 1.5% within the period of 2015-2016 (Ministry of Health, 2016). The age-adjusted incidence rate for NZ is 126 people per 100000 which is the second largest incidence rate amongst developed nations (Feigin et al., 2014; Feigin, Lawes, Bennett, Barker-Collo, & Parag, 2009). In the period between 1981 to 2012, there was a decrease in mortality and stroke incidence in NZ. However, in general, the rate of reduction in stroke incidence was 20% lower in NZ relative to other developed countries. The increased rates of stroke in Maori and Pasifika populations can explain, to a large extent, the high number of stroke incidence in NZ (Feigin et al., 2015).

1.4   Pathophysiology of Stroke

Stroke is caused by the blockage of blood to brain tissue, thus blocking oxygen to neurons, which leads to brain damage (Shah, 2000). When cerebral blood flow decreases or there is no blood flow, neuronal death occurs because of the enzymes secreted by endothelium, leucocytes, ethryocytes, platelets and other neuronal cells. Neuronal death occurs via apoptosis (programmed cell death) and/or coagulation necrosis (cell death where inflammation is not activated; Shah, 2000). There are three types of stroke: ischemic stroke, intracerebral haemorrhage (ICH) and subarachnoid haemorrhage (Feigin & Krishnamurthi, 2014). Between 2011 and 2012, 81% of stroke were ischemic, 13% were ICH and 5% were subarachnoid haemorrhage (Krishnamurthi et al., 2018).

Ischemic stroke refers to lack of oxygen to neurons because of blood flow blockage or reduced blood flow to the brain. This leads to the damage in the regions where blood flow was blocked (Shah, 2000). The blockage is caused by an embolus or a thrombus (Shah, 2000). There are several types of ischemic stroke: large artery artherosclerosis, cardioembolism, small artery occlusion, stroke of determined cause and stoke of undetermined cause (Kim, 2014). The definition of ICH includes "the irruption of blood in the cerebral paranchyma" (Rossi & Cordonnier, 2014, pp 51). ICH can be classified into small and large vessel diseas, venous disease, vascular malformation, ICH due to other illness and spontaneous (cause is unknown). ICH is mainly caused by arterial blood leaking into the cerebral paranchyma as a result of ruptured peneterating arteries (Rossi & Cordonnier, 2014).

Stroke is a heterogeneous disease and can involve various biological mechanisms in terms of pathology (Kim, 2014). These include large artery disease (LAD), small artery disease and cardiac embolism (a thrombus originating in the heart). Cerebral infarction is primarily caused by LAD in developed nations. The dominant pathology for LAD involves atherosclerosis and then, the formation of a thrombus on the area of arthrosclerosis (Kim, 2014). Arthrosclerosis is the process fibrous plaque formation in the aorta or in the internal carotid arteries. This is enhanced by repeated mechanical or toxic damage to the intima, caused by turbulent blood flow (Kim, 2014). Risk factors (for example, hypertension, smoking cigarettes and diabetes) can also enhance the process of atherosclerosis. Other processes associated with atherosclerosis include artery-to-artery embolism, hypoperfusion and occlusions formed by thrombosis or atherosclerosis (Kim, 2014).

1.5 Impact of Stroke

Symptoms, such as difficulties with activities of daily living (for example, grooming, dressing, eating and walking; Petrea et al., 2008), decreased physical functioning, fatigue and depression is commonly reported in the acute phase of stroke (Lerdal et al., 2011). Stroke can also have an enduring impact on various parts of an individual's life; stroke can affect the physical, mood, psychological, functional and cognitive domains of an individual (Barker-Collo et al., 2016; Crichton et al., 2016). 25% of individuals who had experienced stroke were moderate to severely disabled, whereas 21% were not active at all, in the 10-15 years after the stroke (Crichton et al., 2016). Six months post-stroke, individuals were reported as experiencing disabilities and other consequences, such as aphasia (19% of stroke survivors), inability to walk with the lack of assistance (35%), hemiparesis (30%) and reliant on others for activities of daily living (26%; Carod-Artal & Egido, 2009).

In a Canadian study, six months after a stroke, individuals had difficulties in household activities such as housework, preparing for meals and shopping; 70% of participants experienced issues with performing one of those activities at the minimum (Mayo, Wood-Dauphinee, Coˆte, Durcan, & Carlton, 2002). Therefore, without a caregiver to assist in activities of daily living, many stroke survivors would not be able to engage in an independent lifestyle. 70% of stroke survivors was limited in terms of travel inside the community they lived in, as well as travelling beyond their community (Mayo et al., 2002). Many individuals (72%) also felt that they did not have significant and meaningful activities (social, recreational or occupational) to engage in on a daily basis (Mayo et al., 2002).

Emotional issues, such as aggressive behaviour and emotional inconsistency (Kim, 2017), as well as psychological issues such as depressive symptoms and anxiety, can also occur as a consequence of stroke (Ayis et al., 2016; Hackett et al., 2014). Ten to fifteen years after an experience of stroke, anxiety and depression were seen in 32% and 38%, respectively, of individuals (Crichton et al., 2016). In fact, there is a strong correlation between depression and a reduced quality of life after a stroke (Reza & Donnan, 2014). Health-related quality of life (HRQoL), functional recovery and cognitive function can be negatively impacted by depression after a stroke (Carod-Artal & Egido, 2009)

Cognitive impairment is a significant consequence of stroke and commonly reported in the long-term (Barker-Collo et al., 2016). At three months after stroke, general cognitive impairment (measured using the Mini Mental Status Examination) was reported in 38% of individuals (Patel, Coshall, Rudd, & Wolfe, 2002). There was a correlation between cognitive impairment at three months and decreased likelihood of long-term survival and increased chance of disability (Patel et al., 2002). 10-15 years after the stroke, cognitive impairment occurred in 22% of stroke survivors (Crichton et al., 2016). Pathological fatigue has also been reported in 40% of individuals who have experienced stroke (Hackett et al., 2014). HRQoL and activities of daily living is significantly correlated with fatigue after a stroke (Carod-Artal & Egido, 2009).

1.6 Ethnic Disparities in Stroke Incidence

There is significant ethnic disparities in stroke incidence worldwide (Feigin et al., 2006; Schneider et al., 2004; White et al., 2005). For example, Black Americans have a higher incident rate (230 per 100000) relative to White Americans (134 per 100000; Sacco et al., 1998; Schneider et al., 2004). Sacco et al. (1998) reported an incident rate of 196 per 100000 fo Hispanics, as compared to White Americans (93 per 100000). There is an increased prevalence in risk factors for stroke including hypertension, diabetes, hypercholesterolemia and current smoking in Hispanics and Black Manhattan Americans relative to White Americans (White et al., 2005). The ethnic disparity in stroke incidence varies depending on the type of stroke. For instance, there is almost a double the increase in small-vessel incident rates in Black Americans relative the White Americans (Schneider et al., 2004). There is a higher incident rates of all ischemic stroke subtypes in Black Americans and Hispanics as compared to White Americans (in Manhattan Americans) and this may accounts for the overall ethnic difference seen in ischemic stroke (White et al., 2005).

In NZ, there are significant demographic differences in terms of stroke incidence, with Maori and Pasifika groups, females and those aged under 65 years experiencing a higher level of stroke incidence relative to NZ Europeans (Feigin et al., 2014). Maori, Pasifika, Asian and other ethnicities had a 1.5-3 times more likelihood of the occurrence of ischemic stroke and ICH compared to NZ European (Feigin et al., 2006). From 1981 to 2003, there were increments in the age-adjusted incidence rate (for stroke) by 19% in Maori people, and by 66% for Pasifika groups. Comparatively, there was a reduction of 19% in age adjusted stroke incidence for NZ European (Feigin et al., 2014).

Additionally, there are ethnic differences in the age of onset of stroke, with Maori and Pasifika experiencing stroke 15 years younger than NZ Europeans (60 versus 75 respectively; Feigin et al., 2015). The variations in risk factor profile between ethnic groups may explain the ethnic disparities in stroke incidence. The variations in the prevalence of risk factors may, in turn, be influenced by environmental factors and socio-economic disparities between ethnic groups (Feigin et al., 2006).

1.7 Risk Factors

Stroke risk factors are both modifiable and non-modifiable risk factors. Modifiable risk factors refer to factors that can be altered and associated with lifestyle factors; and occur in an individual's environment (Allen & Bayraktutan, 2008). Non-modifiable risk factors are those that cannot be changed and is part of the individual's genetic make-up and/or arising from other innate mechanisms such as age, sex and ethnicity (Allen & Bayraktutan, 2008).

1.7.1 Modifiable Risk Factors

There is compelling evidence from large epidemiology studies which support the contribution of 10 modifiable risk factors associated with incidence of stroke (Feigin et al., 2016b; O'Donnell et al., 2016). These risk factors include hypertension, smoking, abdominal obesity, diet, physical activity, diabetes mellitus, alcohol intake, psychosocial factors and apolipoproteins (O'Donnell et al., 2010). The most significant risk factor for stroke is hypertension (O'Donnell et al., 2016; O'Donnell et al., 2010). As risk factors associated with stroke are identical or similar to risk factors associated with other non-communicable disease (NCD), such as heart disease and cancer, stroke prevention can occur alongside addressing and preventing all NCD's (Norrving, 2014).

Chiuve et al. (2008) conducted a study with 114, 928 and found that that there was a significant association between a low risk lifestyle (which was defined as not smoking, engaging in physical activity every day, healthy diet, healthy weight and moderate alcohol consumption) and a reduced risk of stroke. Furthermore, the risk of stroke for those with a low risk lifestyle was reduced by 80% relative to those who did not engage in a low risk lifestyle (Chiuve et al., 2008).

Modifiable risk factors are more likely to occur in non-European ethnicities (for instance, in Maori and Pasifika people), and for those who are of a lower socioeconomic status, comparative to NZ European (Bay et al., 2015). There are ethnic disparities

between Pasifika people and NZ Europeans in terms of smoking prevalence; and the prevalence of diabetes mellitus and blood pressure (Grey et al., 2010). For example; diabetes is three times more likely to occur in Pasifika people compared to NZ European; and Pacific men are twice as likely to smoke than NZ European men (Grey et al., 2010). Pasifika people also have an increased diastolic blood pressure relative to NZ European (Grey et al., 2010). Comparative to NZ European, there was a higher occurrence of diabetes mellitus for Maori people (30%) and Pasifika people (43%); and smoking behaviour manifests more in Maori (40%) and Pasifika people (24%; Feigin et al., 2015).

1.7.2 Non-Modifiable Risk Factors

None-modifiable risk factors are factors that cannot be changed and is associated with genetic factors and other natural mechanisms (Allen & Bayraktutan, 2008). An example of these factors is age; the older an individual the higher the likelihood of experiencing stroke (Allen & Bayraktutan, 2008; Lindgren, 2014). Stroke is more likely to occur in those who are over the age of 45 years (Allen & Bayraktutan, 2008). There is a higher likelihood of a stroke occurring in men as opposed to women (Allen & Bayraktutan, 2008). Men are 1.3 times more likely than women to experience a stroke at any age (with the exception of the age range, 80-84 years). A higher level of stroke risk is related to the experience of early menopause; the prevalence of various vascular risk factors increases after menopause (Lindgren, 2014).

Genetic factors are associated with higher risk of stroke. There is a 38% heritability for ischemic stroke (Lindgren, 2014). Monogentic variations (such as cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy; and the NOTCH3 gene) has been related to uncommon stroke syndromes. Genotypes, particularly single-nucleotide polymorphism (SNP) vairations, have been correlated with phenotypes and could lead to higher stroke risk; for instance, there is a higher likelihood of experiencing ischemic stroke with SNP variations in chromosome 9p21 region (Lindgren, 2014).

1.8 Primary Prevention Strategies

Primary prevention strategies are the optimum method to reduce stroke burden; with an emphasis on targeting modifiable risk factors (Goldstein et al., 2010; Rundek & Sacco, 2008). The two types of primary prevention methods include high risk approaches where prevention is implemented on those who have an elevated risk of stroke; and

population-based approaches, where risk factors are addressed at a population level (Emberson, Whincup, Morris, Walker, & Ebrahim, 2004). High risk strategies are predominantly used in the prevention of stroke globally. This strategy usually involves assessing five-year cardiovascular disease (CVD) risk (Feigin et al., 2016a). A five-year risk of 5-10% or more indicates elevated risk (Ministry of Health, 2018). Based on the risk of a patient, recommendations are made on the preventative methods that are applied to the individual and the level of intensity of the intervention (Feigin et al., 2016a). Currently, the World Health Organization (WHO) recommends the use of both high risk prevention strategies and population wide strategies (Feigin et al., 2016a).

Recommendations have been made to address various modifiable risk factors in the prevention of stroke (Goldstein et al., 2010; Ministry of Health, 2018). These recommendations include targetting health behaviour change to reduce stroke. For instance, monitoring and treating blood pressure utilizing both lifestyle changes and medication (Goldstein et al., 2010; Ministry of Health, 2018). Addressing smoking behaviour by utilizing a variety of techniques such as counselling, nicotine replacement and medications for smoking cessation (Goldstein et al., 2010). Altering diet by consuming food that has lower levels of sodium; and ensuring the individual's diet includes sufficient amount of fruits and vegetables (Goldstein et al., 2010). The recommendation for physical activity includes engagement in vigorous intensity physical activity for 40 minutes, 3-4 days of the week as a minimum (Meschia et al., 2014). It has also been recommended that the risk of stroke should be evaluated using tools that would take into account multiple risk factors. This would identify individuals who require a therapeutic intervention for potential overall risk of stroke, even if they are not being treated for a particular risk factor (Meschia et al., 2014).

In terms of cardiovascular risk management in NZ, the risk of cardiovascular disease (CVD) is calculated as a 5 year absolute risk prediction. The Framingham Heart Study prediction equation is used to estimate the absolute 5-year risk of cardiovascular disease (i.e.the probability of a person developing cardiovascular disease, including stroke, in the next 5 years) (New Zealand Guidelines Group, 2003). PREDICT can estimate an absolute 5-year risk, including stroke, by utilizing the CVD risk factors entered directly into the patient medical record (Riddell et al., 2010). The Framingham risk equation was adapted for NZ and included in national CVD Guidelines Cardiovascular (NZ Guidelines Group, 2003); and since 2002, risk assessments have been conducted in many NZ primary health care practices (Riddell et al. 2010). The routine use of PREDICT by primary health

providers has been endorsed by the NZ Ministry of Health (MOH). Therefore, the number of people in NZ routinely screened is steadily increasing (Riddell et al., 2010).

Depending on the level of CVD risk, The NZ Guidelines for the Assessment and Management of Cardiovascular Risk recommend the following: lifestyle modification is highly recommended as an intervention, for people at more than 10% five-year CVD risk. For people at greater than 15% five-year CVD risk, lifestyle interventions, aspirin, blood pressure lowering medication and lipid modifying therapy (statins) should be utilized to reduce cardiovascular disease risk. For individuals with higher risk (more than 20 – 30%), a greater intensity of treatment is recommended (Ministry of Health, 2018). When advice is given regarding lifestyle changes, this should be modified to the individual's context. Behavioural counselling strategies should be used in implementing lifestyle interventions; and these should include building skills and creating motivation for changing health behaviours (Ministry of Health, 2018). Lifestyle change and motivation are an important part of stroke prevention (Chiuve et al., 2008) and an essential component of changing and sustaining health behaviours (Feigin, Norrving, & Mensah, 2017b).

However, despite these recommendations, current high risk prevention strategies is inadequate in terms of it's efficacy and the recommendations are not implemented among individuals as much as they should be (Feigin et al., 2016a). Within healthcare organizations, there is a lack of education to support individuals with high risk of CVD, in making lifestyle alterations and in medication compliance (Feigin et al., 2016a). Reduced compliance to recommendations of primary prevention strategies has been reported, especially in those individuals who have medium risk of stroke; a decrease in the amount of efficacious communication between health professionals, clients and their family, may partially explain this. Individuals are less likely to adhere to recommendations if their risk of stroke is only slightly raised (and who may not necessarily be at a high risk of stroke; Feigin et al., 2016a).

Additionally, considering the ethnic disparities in stroke onset and incidence is cruical in primary prevention interventions, so they are tailored to all cultures (Feigin et al., 2015). Self-management, cultural awareness and long-term community engagement should form the foundation of these interventions (Feigin et al., 2014). Hence, there should be an emphasis on developing culturally relevant primary prevention strategies in NZ's multi-ethnic population (Feigin et al., 2014; Feigin et al., 2015).

1.9 Health and Wellness Coaching

Health and wellness coaching (HWC) is emerging as an extensively utilized intervention for prevention and management of chronic conditions, such as cardiovascular disease (Kivelä et al., 2014; Vale et al., 2003). The purpose of health coaching is to achieve better health outcomes and enhanced quality of life. This is elicited by supporting individuals with chronic health conditions to engage in life-style related health behaviours (Boehmer et al., 2016; Kivelä et al., 2014). The health coach aims to connect with the client and evoke their motivation, rather than simply educating clients about their health and how to enhance their health (Huffman, 2009). The latter method is a conventional approach which assumes that the health professional has the knowledge for improving the health of the client and does not actively address the client's motivation (Huffman, 2009). In health coaching, the client is the focal point in terms of health behaviour change (Huffman, 2009). HWC as an approach also utilizes active listening and evokes client's to talk about what changes they want in their life (Huffman, 2009). The emphasis is on exploring the beliefs and values clients hold, as well as any worries they have; hence, establishing the significant aspects of the client's life. HWC also involves being guided by what the client wants; and figuring out the client's readiness for change (Huffman, 2009).

HWC is effective in treating people with chronic disease at a physiological, behavioural, psychological and social level (Kivelä et al., 2014). Health coaching has been shown to increase client participation in lifestyle modification plans and has increased adherence to blood pressure medication for those with diagnosed hypertension (Crittenden, Seibenhener, & Hamilton, 2017). In terms of eliciting healthy eating and physical activity in adults, the health coaching approach has been reported to enhance perceived autonomy and regulating one's own motivation; and reported a decrease in the perceived barriers to change (van Rinsum et al., 2018). Quality of life has also increased following engagement in health coaching (van Rinsum et al., 2018). An added benefit of health coaching is that there is a possibility of reducing cost with coaching interventions. This is a benefit because current prevention methods for cardiovascular disease prevention are expensive and do not show optimal effectiveness (Sathe et al., 2016).

Vale et al. (2003) assessed the effectiveness of a health coaching approach, on improving CVD health in patients (n=792) with coronary heart disease (essentially, as a

secondary prevention method). Patients who received coaching showed a decrease in total cholesterol levels; and improved blood pressure, body weight, diet, physical activity levels and symptoms of coronary heart disease (Vale et al., 2003). However, this study primarily addressed secondary prevention (Vale et al., 2003) with an emphasis on addressing the treatment gap in those with coronary heart disease (Byrnes, Elliott, Vale, Jelinek, & Scuffham, 2018). In assessing the long term efficacy of the aforementioned study, it was found that there was a higher likelihood of survival (in terms of mortality) and decreased total cost (by $12000 per patient) in individuals who participated in four coaching sessions or more over six years (Byrnes et al., 2018). Although this study included randomisation, the control group and intervention group were unequal in terms of baseline traits such as sex, age, relationship status and previous hospital admission; propensity score matching was utilized to address this limitation (Byrnes et al., 2018). Outcomes for the study was also measured in terms of hospital cost and survival; and so, there was a lack of biomedical data or measurement of lifestyle factors. Therefore, there is some limitations to the findings (Byrnes et al., 2018).

Telephone-based health coaching has not been effective in improving certain health behaviours; these studies utilized blood pressure measurements, hospital admission and cost as the outcome measures (Patja et al., 2012; Steventon, Tunkel, Blunt, & Bardsley, 2013). The lack of effectiveness may have occurred because the intervention targeted many health behaviours but the intensity of the intervention (in terms of how many calls were conducted) was not adequate to target many health beviours at once (Patja et al., 2012). Additionally, it could be that either the effectiveness of the intervention may not be reflected by the clinical measures or there was a post-poned effect, which was not captured in the outcome measures (Patja et al., 2012). In comparrison, Härter et al. (2016) found that, compared to a control group, telephone health coaching lead to a decrease in hospital admissions at 24 month follow up in those with heart failure but not in those with chronic or mental health issues. There was a significant decrease in the probability of mortality at two year follow up in individuals who were in the telephone health coaching (Härter et al., 2016). Miller et al. (2018) also found a decrease in dietary intake which in turn led to an improvement in cholesterol levels due to a telephone-based health coaching intervention.

Furthermore, clients with diabetes improved in psychosocial outcomes, the way they understand their illness, behaviour change and compliance to medication following a

telephone-based health coaching intervention. With regards to compliance to medication, recognizing barriers to the behaviour change was useful to address, as there was a decrease in number of barriers recognized post-intervention (Wolever et al., 2010). HWC also enhanced client's coping skills and self-confidence in the ability to manage their diabetes; and has altered exercise behaviour (Wolever et al., 2010). The client-centered approach in health coaching was useful in diabetes management because coaches work alongside clients and provide support to evoke and maintain motivation, foster commitment and responsibility for change in clients. The target was to elicit goals and work towards the goals; and the focus is not on analysing reasons that a client may not be changing health behaviours (Wolever et al., 2010).

The Heartbeats Connection (HBC) Program was a telephone coaching intervention combined with medication management. The aim of this program was to address CVD risk factors in those with a high risk (Benson et al., 2013). A retrospective cohort study was conducted to examine the efficacy of coaching over a period of six months (Benson et al., 2018). Participants of the HBC program were compared to those who were eligible to participate in the program but did not take part in the HBC program (non-participants). Non-participants' data was utilized from their electronic health records (which recorded health information of all eligible particpants in the New Ulm, Minneapolis area, an area mainly serviced by the Allina Health System). The Allina Health System Intstitutional Review Board approved this study with a waiver for informed consent, for the completion of the study (Benson et al., 2018). This study showed that participants had better LDL cholesterol levels relative to non-participants. Participants who engaged for longer in the HBC program showed a higher level of improvement in LDL cholesterol levels. In participants (versus non-participants), fruit and vegetable intake increased by twice the amount and there was a reduction in tobacco use. Participants also showed enhanced physical activity levels (Benson et al., 2018).

Although there were improvements in certain risk factors, the HBC program did not lead to improvement in all aspects of CVD risk. There was no improvement in blood pressure management nor reducing BMI in participants versus non-participants (Benson et al., 2018). It was also noted that this study was not a randomized clinical trial and so, selection bias may have limited these findings (Benson et al., 2018).

1.10 Health and Wellness Coaching in a Multi-ethnic Community

There is limited data which has examined the efficacy of using a HWC intervention in primary prevention in a multi-ethnic population (Mahon et al., 2018). A 2016 study assessing the feasibility of health coaching for reducing hypertension in a rural African American population found that there were higher levels of commitment in this group (Donahue et al., 2016). In another study, health coaching was conducted alongside home blood pressure monitoring and home titration of hypertension medication, on a minority sample population in California (Margolious et al. 2012). Systolic blood pressure was shown to decrease as the frequency of health coaching sessions that clients engaged in increased. However, the lack of a control group alongside the intervention group was noted (Margolius et al., 2012). There was also a lack of information with regards to what is meant by a minority group (the only information available was that the exclusion criteria included those who could not speak English, Spanish, Cantonese and Vietnamese) and whether the health coaching intervention addressed cultural needs specifically (Margolius et al., 2012).

A health coaching intervention adapted to South Asian individuals was trialled in California to determine feasibility (Sathe et al., 2016). An example of how cultural modification was implemented was constructing a diet plan that included replacing unhealthy traditional dishes with healthier food (Sathe et al., 2016). This could be a benefit, addressing particular aspects of the individual's diet in terms of traditional foods (Sathe et al., 2016). However, the coaching intervention seemed less client-centered compared to, for example, the intervention used for diabetes management in Wolever et al. (2010). As part of the coaching intervention, clients were asked to explore why they were not changing health behaviours (Sathe et al., 2016), which may not have been so useful (Wolever et al., 2010). However, only 50% of the initial recruited participants completed the intervention (Sathe et al., 2016). Although it was noted that this type of intervention could be effective in addressing health behaviours in South Asians with a high CVD risk, the high attrition rate was a limitation (Sathe et al., 2016).

An integrated intervention that included health coaching was implemented on a sample group of Hispanic women that were at risk of developing Type 2 Diabetes from a low socio-economic environment (Baldwin, 2015). This led to a significant reduction in BMI and HbA1 levels; and significantly increased physical activity levels and reduced health behaviour risk scores after the intervention was implemented (Baldwin, 2015).

Health coaching was delivered by nursing students who were involved in the Hispanic community and was bilingual, which was useful when communicating with clients who were not proficient in English (Baldwin, 2015). However, this study included only one group (it did not have a comparison group); and outcomes from before the intervention and after the intervention were compared within the same group of participants. Therefore, although outcomes showed significant improvements, whether it was due to the intervention cannot be established for certain due to the lack of a control group (Baldwin, 2015).

The COACH intervention, as described above (see Vale et al., 2003), was implemented on a sample of Australian indigenous (Aboriginal and Torres Strait Islander Australians) people with type 2 diabetes and/or coronary heart disease. The efficacy of this intervention was compared to a Non-Indigenous group. The results showed that coaching improved smoking cessation, reduced alcohol intake as well as increased levels of physical activity in both groups. Both groups also showed better lipid levels and glucose levels (Ski et al., 2015).

Although there was a lack of significant variation between the two groups (indigenous versus non-indigenous) and risk factors improved in a similar pattern in both groups, this indicates that the COACH program can be utilized in an indigenous community in Australia (Ski et al., 2015). However, it should be noted that the indigenous group had a higher probability of smoking behaviour and alcohol intake; and on average, tended to be younger relative to the non-indigenous group. Thus, the baseline measurement for the indigenous group were not evenly matched to the non-indigenous group in terms of randomisation, although improvements in risk factors, after the intervention, was the same (Ski et al., 2015).

The current literature gives limited support for using health and wellness coaching in a multi-ethnic community ((Baldwin, 2015; Sathe et al., 2016) and in order to manage cardiovascular risk factors (Donahue et al., 2016; Margolius et al., 2012; Sathe et al., 2016). In order to clarify the efficacy of HWC on cardiovascular disease and stroke risk, Mahon et al. (2018) conducted a randomized clinical trial known as the PREVENTS Study. The participants in this trial were of four different ethnic groups including NZ European, Maori, Pasifika and Asian; and recruited from GP clinics and primary health organizations in Auckland, NZ (Mahon et al., 2018). The clinical trial included 15

coaching sessions and follow up assessments every three months, up to 12 months post allocation (Mahon et al., 2018).

The current study will explore the experiences of individuals from the intervention group in this clinical trial. In the current study, qualitative interviews will be conducted with participants who are willing for further follow up. The aim of the current study will to explore the experiences of HWC in a multi-ethnic sample and whether the experiences differed among the four different ethnic groups.

Chapter 2 Methodology

2.1   Research Paradigm: Interpretivism

The current study is placed within an interpretivist paradigm (Grant & Giddings, 2002) because it is exploring the experiences of participants who were involved in HWC. The researcher understands that each participant may have had a different subjective experience of HWC. Each experience is a valued reality that needs to be explored when exploring the effectiveness of HWC for prevention of stroke and cardiovascular disease. The methodology that will be used in the current study, within the interpretive paradigm, is interpretive description.

The interpretivist paradigm involves exploring people's experiences from the person's perspective (Grant & Giddings, 2002). An underlying assumption for this paradigm is that there are multiple realities for the same phenomena (Nicholls, 2009). This is different to the positivist paradigm which emphasises objective reality. This paradigm puts emphasis on experimentation in controlled environments in order to predict phenomena and the validation of the results as being objective (Grant & Giddings, 2002; Nicholls, 2009).

In interpretivism, the relationship between the researcher and participant involves understanding the participant's experience and the value the participant has given to the experience (Grant & Giddings, 2002). The data retrieved from the participant is interpreted by the researcher, leading to an intersubjective interaction between the participant and researcher. Both researcher and participant contribute in the data collection process but the researcher's interpretation of the data dominates in the analysis process (Grant & Giddings, 2002).

2.2   Research Methodology: Interpretive Description

Interpretive description originates within nursing research. Researches in the nursing discipline have found that they needed to extend beyond the boundaries of traditional methodologies such as grounded theory, phenomenology and ethnography, in the process of investigating certain clinical issues (Thorne, Kirkham, & O'Flynn-Magee, 2004). The underlying assumptions that comprise other methodologies, and the interaction between other qualitative methodologies and the overall aim of the discipline they are affiliated with, may not necessarily work well within a health context (Thorne, Kirkham, & MacDonald-Emes, 1997). Significant limitations of using these traditional

methodologies arose when they were utilized for research in clinical contexts. For instance, a core phenomenological assumption is that subjective experience is distinct from the world of the individual. This does not align with how subjective experiences are perceived from a nursing and clinical point of view, where client experiences are seen to be generalizable (Thorne, 2016).

Hence, interpretive description was proposed to facilitate the research of complex inquiries within a clinical context, in nursing and other practical disciplines (Thorne et al., 2004). Interpretive description methodology allows for the exploration of subjective experiences around health and illness (Thorne et al., 1997). With an interpretive description methodology, researchers aim to produce findings that can inform clinical practice. This approach ensures that researchers can explore experiences relevant to clinical practice; and find themes across individual experiences and simultaneously acknowledge individual differences (Hunt, 2009).

Therefore, interpretive description is an appropriate methodology for the current research because the aim is to explore experiences of HWC which could potentially inform clinical practice regarding stroke and cardiovascular disease prevention. The current study also aims to explore how this intervention can be tailored for a multi-ethnic community; therefore, there is a need to explore the subjective experiences of participants to see common themes across participants of different ethnicities, as well as variations between participants of different ethnicities.

2.3   Trustworthiness in Qualitative Research

 Trustworthiness refers to the confidence and faith in the findings of the research. It is important to establish the trustworthiness, or rigor, in qualitative studies because it increases the confidence in the findings, and ensures methods used across studies are homogenous (Thomas & Magilvy, 2011). It also ensures that the study population is accurately defined (Thomas & Magilvy, 2011). Therefore, this section will highlight how the researcher attempted to establish trustworthiness in the current study.

Trustworthiness can be conveyed by addressing four factors that could increase the trustworthiness of the findings. These include credibility, transferability, dependability and confirmability (Thomas & Magilvy, 2011). Credibility is comparing the experiences described in the data, within each participant's data, as well as between the different participant data. This can ensure that the data analysis is as accurate as it can

be (Thomas & Magilvy, 2011). Coding can be used in thematic analysis to identify patterns within and across participant interviews (Saldaña, 2015) and this can increase the credibility of the current study (Thomas & Magilvy, 2011). In the current study, coding was utilized to compare patterns in the data within and across participant interviews. This ultimately lead to the formation of final themes.

Transferability refers to the extent that the findings can be generalized to other situations or with other individuals (Thomas & Magilvy, 2011). Describing the demographic characteristics of the participants can define the limitations of the generalizability of the findings, demonstrating transferability (Thomas & Magilvy, 2011). Hence, in the current study, demographic characteristics of the participants will be described, as illustrated in Table 1.

Dependability is when the study can be replicated in the same way (Thomas & Magilvy, 2011). Dependability can be attained by including an audit trail in the study. An audit trail can be established by stating the aim of the study, describing and recording how participant recruitment, data collection and analysis was conducted (Thomas & Magilvy, 2011). An audit trail will be established in the current study. Firstly, the aim of the study is described, information on participant recruitment will be included; comments and notes will be made during the process of thematic analysis at the data analysis stage. A final report of the findings will also be generated.

Confirmability refers to being reflective in the research practice; it involves being objective and to being receptive to the findings (Thomas & Magilvy, 2011). Confirmability is attained when the other three elements of trustworthiness is addressed and it can be established by demonstrating reflexivity (Thomas & Magilvy, 2011). Demonstrating reflexivity can also contributes to the credibility of the study (Darawsheh, 2014; Mays & Pope, 2000). Reflexivity refers to recognizing the influence of the researcher's personal experience on the research process. It is important for the researcher to reflect on personal feelings, ideas and behavior and how this might impact the research process (Darawsheh, 2014). Reflexivity allows the researcher to establish the position of the researcher relative the research (Darawsheh, 2014), and explore how the separation between the researcher and participants can be maintained (Mays & Pope, 2000). In demonstrating reflexivity, it is also recommended that reflections are made regarding the personal and intellectual biases of the researcher, as well as personal traits (for instance, age, sex and professional status) (Mays & Pope, 2000)).

Hence, reflexivity is be demonstrated in the current study. The following paragraph demonstrates the researcher's stance relative to the research in the current study:

"I have limited professional research experience in stroke prevention: my research in Bachelor of Health Science (Honours) in 2017 included qualitative and quantitative research in stroke prevention but this did not involve the PREVENTS study or HWC. Therefore, in a professional sense, I came into this research with a fresh perspective, to an extent."

"In my personal experience, I have a family history of cardiovascular disease and diabetes mellitus, which forms the basis of my interest in health research. I am also a Sri Lankan born female, who migrated to NZ at the age of 7 (approximately 16 years ago), and the daughter of immigrant parents. Growing up in NZ with exposure to an immigrant community and the everyday struggles they face, particularly in health settings, has largely influenced my interest in health and psychology research within a multi-ethnic community. I believe this is an advantage because it has contributed to my understanding of why research in a multi-ethnic community is important with regards to stroke and cardiovascular disease prevention. However, throughout the research, I was well-aware of using this understanding in enabling empathy for my participants, but also remaining objective. I did this by constantly reflecting on my analysis process (for example, when engaging in data analysis), discussing any issues that I had during the research process in supervision (with peers and my research supervisor), particularly during data collection; and having my work reviewed by my research supervisor".

"I did not personally know the participants in the current study before my involvement in the study. During the research, I spoke to participants to initially recruit them to the study, then to organize a time for the interview, and then during the interview. I did not have any contact with participants outside of this process. Therefore, this demonstrates that an appropriate distance was maintained in the interaction with participants, to ensure that extended contact did not influence my perceptions during the research process".

2.4 PREVENTS Study and the HWC Intervention

The PREVENTS study is a randomised controlled trial (n=320) that examined whether a HWC intervention decreased the risk of stroke and cardiovascular disease (Mahon et al., 2018). The participants were recruited for the PREVENTS study via Non-

government Organisations (NGO's) in Auckland that utilize PREDICT or other tools like the PREDICT to calculate CVD risk. The inclusion criteria for participants were being above 30 years for Maori and Pasifika participants and above 45 years for participants of other ethnicities. All participants had an absolute 5 year CVD risk of 10% or above (Mahon et al., 2018). Participants were randomized into the HWC and usual care group; and stratified by ethnicity into four equal strata. The four ethnic groups were Maori, Pasifika, Asians and NZ European. Stratified minimization randomisation was utilized to balance factors (including age, sex and CVD risk) between groups (Mahon et al., 2018).

The exclusion criteria for participants included a) the inability to speak in English; b) history of stroke or heart attack; c) the presence of significant impairment or medical issues before the study; d) unable to provide informed consent; e) participant's GP has indicated the participant is not appropriate for the intervention; f) engaging in treatment that may confound the intervention in the study; g) may leave the study area during the year; h) has a score of 19 or higher in the Patient Health Questionnaire (PHQ-9), indicating clinical depression (Mahon et al., 2018).

The HWC intervention that participants engaged in, is described as follows. There were 15 HWC coaching sessions; the first two sessions and the last session was conducted in person, whereas the other 12 sessions were conducted over the phone or in person. The duration of the sessions were 30 minutes to 1 hour (at first, the sessions were an hour long and as the sessions progressed, they lasted about 30 minutes). There was a whanau/family focus to the sessions and the participants were encouraged to include family in the sessions (but this was not a necessity) (Mahon et al., 2018). The coaching sessions included aims and strategies used within each session. Strategies such as the use of circle of life tool and values and readiness to change tools to evaluate health risk; the use of wellness map, illness/wellness continuum and other tools to create a wellness vision. Goal setting was a part of the intervention; strategies such as a self-talk diary was used to assess goals (Mahon et al., 2018). An outline of the HWC intervention is included in Figure 1 below, and describes the outline of the intervention in detail. The usual care group was provided standard care and this did not involve the HWC intervention (Mahon et al., 2018).

Topic	Aims/strategies for the coaching sessions
Session opening	Introductions, setting expectations, cocreating the relationship with client (establishing trust and intimacy), discussing the study and confidentiality, setting the foundation
Health risk assessment	Focus on positive and strengths, circle of life tool, values and readiness to change for participant
Wellness vision	Wellness map, illness/wellness continuum, decisional balance, goal triangle, dreams and vision of self and well-being in three to five years, identify values and motivators
Three-month goals	Midterm goals for consistent behaviors to be doing in three months' time, consider barriers and supports, focus framework, self-talk diary, recurring pattern intervention (RPI)
Weekly goal(s)	First experiment and short-term step forward in an area that the participant is motivated and ready to change, ideal week planner
Session close	Affirm belief in the participant and their autonomy, review how the process can be improved, complete coaching evaluation and participant evaluation, schedule next session
Topic	Aims/strategies for the first session (over the telephone or in-person, if required)
Session opening	Check in, highlight of the week, set the agenda
Review weekly goals	Focus on positive, explore full experience, and reflect participant's strengths and values. Review vision and three-month goals. Confirm the vision and three-month goals are still where the client is heading, only done once per month
General moment	Participant identifies a target behavior to address, explore ideal situation, best past experience, values and strengths, and brainstorm ideas
Set weekly goals	Next step in behavior change in an area the participant is motivated and ready to change, SMART (Specific, Measurable, Action-based, Realistic and Time-bound) goals
Session close	Affirm belief in the participant and their autonomy, complete coaching evaluation and participant evaluation review how the process can be improved, schedule next session (if relevant)

Figure 1. Outline of HWC session content (Retrieved from Mahon et al., 2018)

In terms of the training for the coaches, this was conducted in person, over a 6-week intensive program. The coaches were trained in the International Coach Federation's (ICF) core competencies; the core competencies were established to provide better explanations of the skills and the perspective that the coaching discipline adhered to (Mahon et al., 2018). These core competencies include: setting the foundation, co-creating the relationship; communicating effectively; facilitating learning and results (Figure 2). The sessions were recorded and discussed in group supervision to ensure that coaching was consistent and that coaches were engaging in the sessions according to the guidelines demonstrated in the training. Each coaching session included an evaluation form for coaches, to review on their own core competency during the session, and a participant evaluation form for participant feedback (Mahon et al., 2018). The coaches also completed cultural competency training.

| Setting the foundation |
| Meeting ethical guidelines and professional standards |
| Establishing the coaching agreement |
| Cocreating the relationship |
| Establishing trust and intimacy with the client |
| Coaching presence |
| Communicating effectively |
| Active listening |
| Powerful questioning |
| Direct communication |
| Facilitating learning and results |
| Creating awareness |
| Designing actions |
| Planning and goal setting |
| Managing progress and accountability |

Figure 2. ICF core competencies for coaches (Retrieved from Mahon et al., 2018)

2.5 Participants

For the current study, the researcher initially contacted the participants who had engaged in the HWC intervention group in the PREVENTS study. The contact details of potential participants were provided to the researcher by the study manager of PREVENTS. In this initial phone call, the researcher briefly explained what the study is about. If the participant was interested in the study, a participant information sheet (Appendix D) and a consent form (Appendix E) were either emailed or posted to the participant, depending on the preference of the participant.

If the participant was willing to arrange a time for the interview in the initial phone call, this was arranged before the relevant information was sent out. Otherwise, the researcher indicated that a follow up call would be made. If the participant was interested in doing an interview in the second phone call, then a time was arranged for the interview in this call. If the potential participant was not interested (at any point in the initial contact), this was noted and no further contact was made.

2.6   Data Collection

Individual, face to face, semi-structured interviews were conducted with participants
who agreed to participate in the study. Semi-structured interviews were utilized because
it allowed the researcher to ensure the questions were standardized to an extent but there
was still space to clarify and explore further, if needed (Barriball & While, 1994). These
interviews were audio-recorded and typically lasted 30 minutes. These interviews were
conducted in a location suited for both researcher and participant. Two interviews were
held at the participant's home, one at a local library, one in the Auckland University of
Technology Manukau Campus library, three at the participants' work place and one at a
local café. The participants were asked to read the participant information sheet
(Appendix D) and the consent form (Appendix E) before the interview. The consent
form was signed and obtained at the start of the interview. Then, the participants were
asked questions regarding their experience of HWC (see Appendix C for interview
guide). A koha of a $20 voucher was given at the completion of the interview. The
interviews were transcribed by the researcher on Microsoft word documents.

2.7   Ethical Considerations

Ethics has already been obtained for the current study from the HDEC (approval:
16/174; Appendix A) and AUTEC (approval 11/297; Appendix B). Furthermore, those
who were approached as potential participants for the current study were participants in
the PREVENTS HWC intervention group who indicated they could be contacted for
further research. Participants were provided an information sheet which included details
of the study and informed that it is their choice to participate in the study.

As part of data collection in the current study, informed consent was obtained before the
interviews were conducted. The informed consent forms were stored with the researcher
and given to the PREVENTS study manager at the conclusion of the current study. The
interview was recorded with the participants' permission. The recorded interviews and
transcriptions are stored in a secure place (it is uploaded in an AUT One Drive account).
Additionally, the final research report does not include any identifying information of
the participant. In the interview transcriptions and final report, the participants were
identified by a numerical value in the format, P0XXX. These measures were taken to
maintain the privacy and confidentiality of the participant.

2.8   Data Analysis: Thematic Analysis

Thematic analysis will be utilized to analyse the data in the current study. This method involves recognising and examining for themes in the data, and reporting those themes (Braun & Clarke, 2006). The process involves becoming familiar with the data while transcribing and reading it; then initial codes are generated where important aspects of data are highlighted. The codes are then clustered together to form themes which are reviewed, defined and named. Significant themes will then be examined and created into a final report (Braun & Clarke, 2006). It is a more flexible method of analysis as it is not bound to a certain theoretical framework and can be used within many different frameworks (Braun & Clarke, 2006).

In thematic analysis, a theoretical approach is where the researcher has ideas or theories from previous research that will influence the analysis; and the researcher has a particular question they are coding for (Braun & Clarke, 2006). On the other hand, an inductive approach is where the researcher is not attempting to fit the data into pre-existing theories or framework (Braun & Clarke, 2006). The current study will take on an inductive approach because it is aiming to explore what the experiences of participants are. Although the researcher has knowledge of previous research before conducting data collection and analysis, the researcher is not attempting to fit the data into a pre-existing theory; the aim is more to examine the stories of participants and reflect subjective experiences.

For the current research, each interview was initial coded on Microsoft word documents using different highlight colours or font colours (Appendix F). Comments were added with the codes (and these comments were also recorded on a separate Microsoft word document) to track the researcher's thought process during the analysis. Once each interview was coded, the researcher collated all quotes and comments (across all interviews) according to the code in a separate document (Appendix G). Then these codes were reviewed again and organized into an initial thematic map (Figure 3). At this stage, the researcher started to produce a draft of the written report; this allowed her to review, define and name the initial themes further, in order to produce the final themes which were organized into a final thematic map (Figure 4). Then, a final report of the main themes was produced.
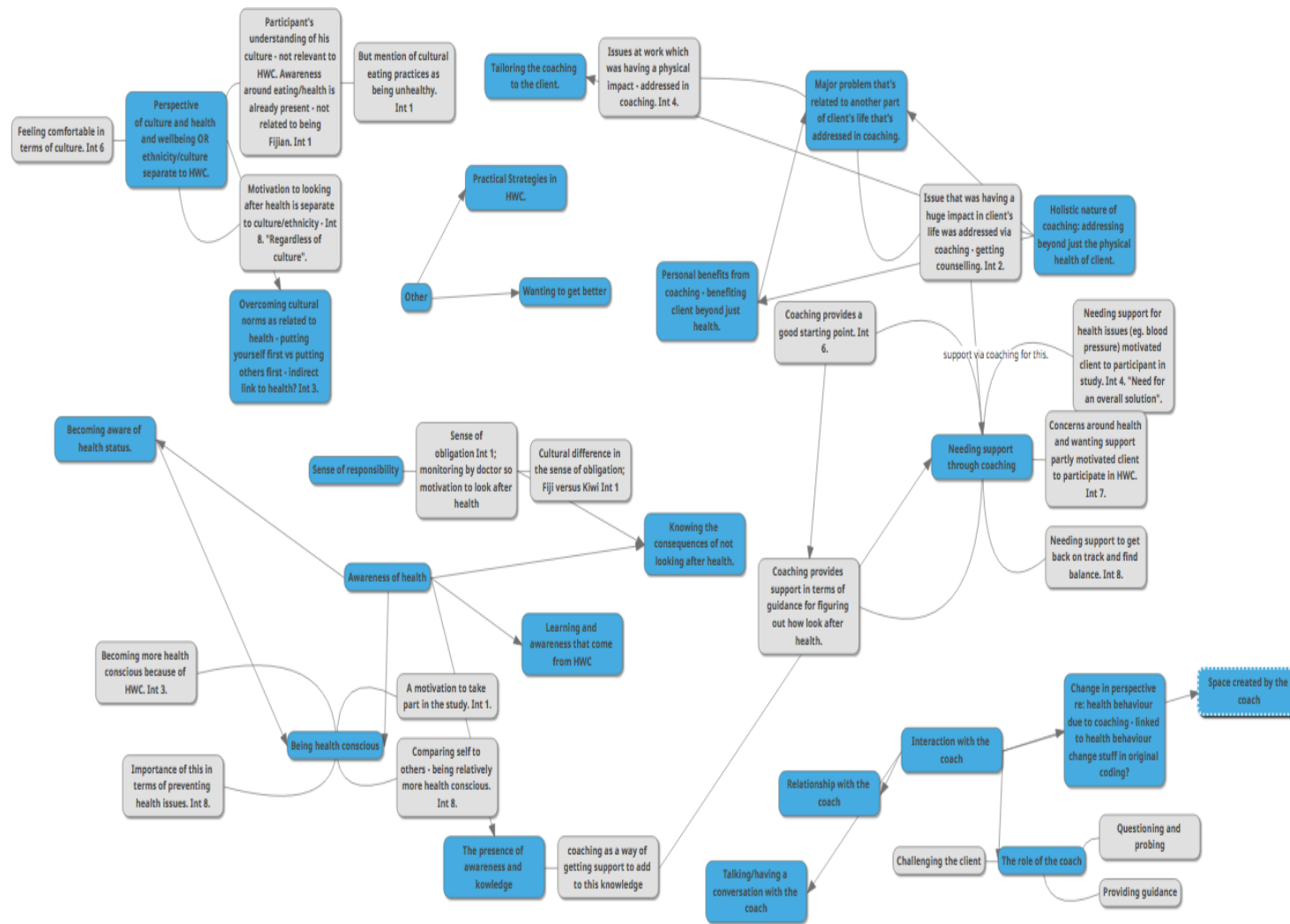
Figure 3. Initial thematic map

Chapter 3 Results

This chapter reports the results from this qualitative study. Demographic characteristics of the sample will be presented (Table 1). Themes, and sub-themes, that were derived from the thematic analysis will be described.

3.1 Demographic Features of Participants

Thirteen participants who had taken part in the PREVENTS study, and allocated to the coaching group were approached for consent in the current study. Eight of these participants agreed to take part (four participants declined and one participant could not be contacted). Three of the participants were males and five were females. The age range of participants is 54 to 66 years old and the mean age is 60.1 ($SD = 4.61$). Participants differed in terms of their ethnic background. In terms of their stratified ethnic groups, two participants were stratified as Asian, three as NZ European, two as Pasifika and one participant as Maori.

Table 1. Demographic Characterisitcs of participants (n=8).

Characteristic		n
Age	50-54	1
	55- 59	2
	60-64	3
	65-69	2
Gender	Male	3
	Female	5
Stratified Ethnic Group*	Asian	2
	NZ European	3
	Pasifika	2
	Maori	1
	Indian	2
	NZ European	3
Self-identified Ethnicity	Tongan	1
	Niuean	1
	Maori	1
Relationship Status	Married	5
	Separated/widowed	3
Education Level	Secondary Level	4
	Tertiary Level	4

*Participants were stratified to four major groups in the PREVENTS study

3.2   Themes and Sub-themes

Thematic analysis was used, as previously described in Chapter 3, to generate six over-arching themes from the data. The findings highlight that the coaching relationship was an important aspect of the HWC experience. The role played by the coach in the relationship, the connection and interactions with the coach, and how participants felt in that interaction, were important factors of this relationship. At a more practical level, participants also described certain strategies that were helpful or not helpful in the coaching intervention. HWC was also seen as a person-centered experience which seemed to be helpful for participants. Participants seemed to have benefited from the coaching sessions at a more personal level; it had a positive impact for participants as they were able to address personal issues that had emerged in the coaching. Another theme that occurred was the participants' level of awareness and understanding of health, as well as what they learned from the HWC (in terms of their health). Additionally, participants who were not NZ European found that their ethnic background or cultural worldview did not have a direct impact on the coaching experience but seemed to have indirect influences. The six themes that emerged from the data (Figure 4) are as follows: 1) Ethnicity/culture not directly relevant to health and wellbeing; 2) The importance of the coaching relationship; 3) Awareness of health; 4) Person-centered nature of coaching; 5) HWC was beneficial at a personal level; and 6) Practical strategies in HWC.
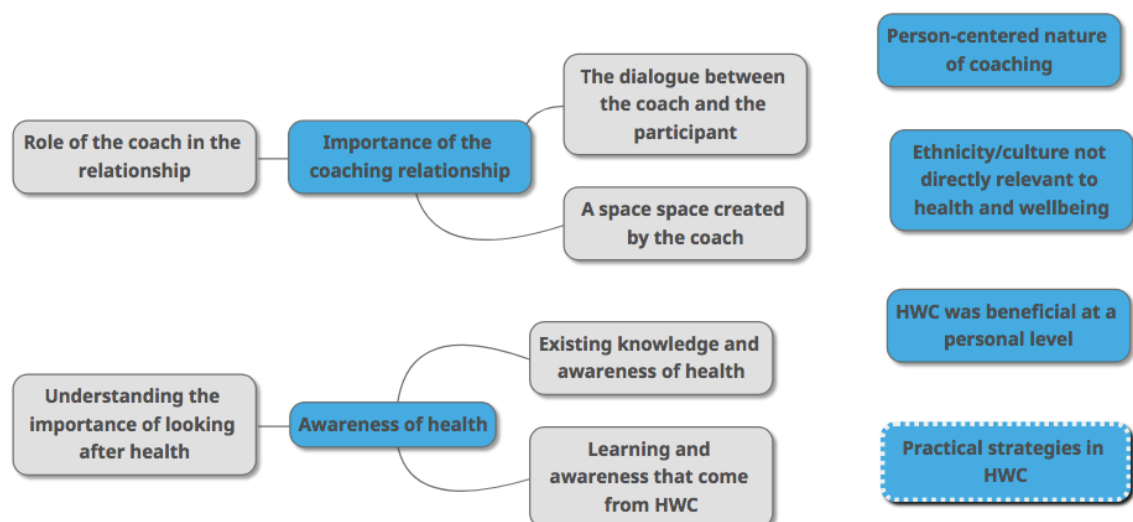

Figure 4. Final thematic map, showing the six main themes.

3.2.1 Theme One: Ethnicity/culture not directly relevant to health and wellbeing

Participants (non-NZ European) felt that their culture/ethnicity did not seem to have any influence on health and wellbeing. Their awareness around healthy eating, for example, was already present and it was not affected by their understanding of culture/ethnic identity. It appeared their cultural beliefs did not directly affect their approach to health and wellbeing.

> *"It's somewhat - I mean, what being taught or what you guys telling us, is already we practising…So practicing in a sense, it doesn't affect our culture. Cultural thing is all together different. Our religion, our way of eating, whether that means, whether you sit together with the family or sit separately…"* (Participant 1, Asian).

> *"And I didn't feel anything, you know - it's sort of hard to say. ?? Um, yeah, the cultural thing sort of didn't really come into it".* (Participant 6, Pasifika).

For one participant, although she felt that the HWC was a good fit within her cultural background, for her personally, she felt it might not be accepted by everyone in her culture/ethnic group. However, she felt the receptiveness of the HWC might not necessarily be related to an individual's ethnicity but whether they are aware of their health status.

> *"I mean, there are some people in my culture who probably wouldn't even (.), um, appreciate what people are trying to do for you. And then, you'd get a whole new other group that would be just coming in like nothing and taking it on board quite easily. So.. it - it kind of depends… because I am at an age where different things are happening to me… I'm a lot slower at healing if I get sick. Um, you know, just things like that. And people in my age group, they realize that a lot better… So irrelevant of what their culture is, they know they need to do something. So that's why its a lot easier to capture those ones".* (Participant 8, Maori).

Although there does not seem to be a direct influence of culture/ethnicity on the HWC (and health in general), there might be indirect influences. One participant described how cultural norms had influenced his approach to health and how this was addressed in HWC. The participant learned that he needed to prioritise himself first in terms of health. This opposed the cultural values he had grown up with where the emphasis was to service other people before one's self. This had led to his focus on his work and put his health second, which was something he realized and had to change.

"...it's sort of like, you're on the aeroplane and you, and the mask come down, you - you don't put on the person sitting next to you. You put on yourself first... and then, you know, you take care of others, you know".

"and you know, culturally wise, you know, if you look at my own family history, my parents put me first. And um, and I do the same for my kids... that ... so that's our culture that - the way we were brought up". (Participant 3, Asian).

One participant felt comfortable in the coaching relationship and seemed to feel that cultural needs were being met in the relationship.

"...there was nothing really to do - there was nothing like that in the ...coaching... That made me feel like that, um... it wasn't cultural, if you know what I mean... I was comfortable... and - and just - just, you know, went into it". (Participant 6, Pasifika).

3.2.2 Theme Two; The importance of the coaching relationship

Many participants seemed to find that the relationship they formed with the coach and aspects of the coaching relationship, was an important part of their experience in the study. This also benefited their health and wellbeing. These factors can be separated into three sub-themes: the dialogue between the coach and participant; the role of the coach; and a safe space created by the coach. The dialogue between the coach and the participant was described in terms of the actual conversations between the participant and coach. The role of the coach was described mainly in terms of the kind of support the coach provided in the client's journey of addressing their health issues. A safe space created by the coach refers to the way patients felt in their interaction with the coach.

The dialogue between the coach and the participant

One of the most beneficial aspects of the relationship participants' had with the coach, appears to be the fact that participants felt they could talk to the coach about their health and also about different aspects of their lives. The actual act of conversing with someone about issues they faced seemed to have been very beneficial for participants.

"...there was a lot of things that we discussed and that that were really helpful". (Participant 2).

"I think that coaching and process is more about that dialogue, that people have, isn't it?" (Participant 3).

"...just sort of going over things that sort of happened. Like (coach) would say, how did your week go? And I'd sort of tell her..." (Participant 6).

> *"...it was talking to somebody about it. And how it works, probably, was the way of getting around it".* (Participant 8).

Talking with the coach on a regular basis was beneficial because this was not something that the participant always had an opportunity to do. Talking through their issues seemed to help the participants understand themselves and their own needs.

> *"...maybe with having the coaching, it actually just gives you that time to breath. And I think it would make a difference. Because we never have people to talk to about anything personal or things that are bothering us, um, and we don't really have ameans of understanding how to work on ourself".* (Participant 4).

It was further reiterated that participants may not always have someone to talk about health because health is not something people generally talked about willingly.

> *"...actually talking to somebody about it, was probably one of the, the, better things I suppose. Um, 'cause not many people like to talk about those things… Or they are afraid to talk about them. Or even ask questions and actually having..um..[name of coach], who is the person who, um, was (.) ringing me a lot of the time and you know - ... how he came in with his knowledge about certain things…it was good to talk to him about a lot of the things".* (Participant 8).

Another aspect highlighted by this client was the empathy and understanding presented by the coach which helped client to open up about her health. This was because she felt she was talking to someone who had a good understanding of what might work for her. The participant seemed to feel listened to; and felt understood and validated in the interaction with the coach. This was not the kind of experience she could have with other people in her life.

> *"...every time it was the talking part that really helped more than anything else…, having someone who could listen to you. And actually understand what you're talking about. 'Cause, no offence to some of my friends, there are a lot smaller than I am. So they don't quite understand - Where I'm coming from. Um, but the older ones are in the same boat as me, and, um (.) because they all know of my condition, it's hard to explain to them about it…'cause if they can't see it, like anything, it's really not something that's there".* (Participant 8).

For one participant, talking was important for the coaching process and also congruent with their own cultural values. He illustrated the importance of talking through issues by sharing a story from this culture. For this participant, talking through issues with the coach enabled reciprocal learning and helped to consolidate problems, come up with a solution or to let go of it completely.

"So, long story short [story from his culture], Pala borrowed money from Peru. $500. And, he promised to pay him on a Monday and on Sunday… worried because he did not have the money to pay him… And so, when his wife called him and said, hey, what's going on Pala? …And he said, look I'm worried because I can't pay Peru the $500. I don't have it. And so what his wife did, open the window [Peru and Pala were neighbours], scream for Peru, and said, look Peru, you know what, Pala owes you $500. He can't pay you the money… So, and then, Pala got angry with his wife, said, why did you - she said, now, let Peru worry about that". (Participant 3).

"So when you talk, you actually share your problems… You halve your problems. And sometimes you can even rid - totally off your - off your issues or whatever it is…" (Participant 3).

The participant seemed to feel that talking and sharing was very important because it made him feel less alone in issues he was facing; and it made him feel valued in the interaction.

"…you get a problem, whatever it is, whatever health issue you have, and you think you are the only one that is struggling with that issue. Until you meet other people with.. maybe double that issue or triple that issue, or - or ten times more.. you realize, oh no, you are not alone, you know". (Participant 3).

"…when you, when you do talk to someone , I mean, right now, you and I talking, I feel valuable, you know… That you've made your time to come over here and - and give me your ears… I feel the - there's a value in it". (Participant 3).

Role of the coach in the relationship

For some participants, the coach seemed to have provided guidance and support in various aspects of their lives including health behaviours. This seemed to give client a space to explore and brainstorm with the guidance of the coach.

"Like I would say these things and she goes, well, what about these things and - tell me to draw diagrams and you know, put yourself here and you know, all the other things". (Participant 6).

"- there are a lot of people that I know that should be going doing stuff like that [referring to HWC]. Um, it's just a matter of them coming out of their shells to be - to be approached by the correct - the right people, I suppose. Or even, told by the right people". (Participant 8).

"…I mean, they say I was chosen because of my hypertension. You know…And if they did that to others and did that normally, it might help them, sort of get in there and see what it is that's - that they need help with. And why is it that they are doing it or have it". (Participant 6).

> *"…gets you on to a good pathway or on road to a good thing".* (Participant 6).

> *"[Coach] giving me pointers on maybe you should try this… if that - you know, and I would try something that he suggested. And then the next session we'd have, um, if it worked, then we build on it. If it didn't work, I'll just say so".* (Participant 8).

For this participant, exploring the barriers for losing weight had resulted in a change in perspective in terms of how she perceived weight loss. This has helped the participant understand how she perceives her weight and that the process of losing weight can look differently with different people.

> *"I felt it - found it [the coaching] quite helpful and giving me ideas on how to do things a little bit better. Um, how to look at things differently…I'm a positive thinker no matter how - what happens. But, um, when it comes to my own weight, I don't think so positive about that… it [HWC/coaching] helped me understand some of the reasons why I had difficulty getting across that line, a little bit more. So I have to kind of attack it from a different angle".* (Participant 8).

> *"'Cause, um, obviously 90% of people, they - if they're trying to lose weight, they expect it to just fall off straight away but.. There are - there are some who will do that and then, there are ways around it where you have to get into a habit of something, before something will work… it's not gonna happen over night… So I had to get over that part of it. Which I already knew anyway but…- it was talking to somebody about it. And how it works, probably, was the way of getting around it."* (Participant 8).

In terms of getting support and guidance from the coach, one participant found that exploring the concept of setting boundaries with the coach helped her understand what it was.

> *"I never really understood boundary setting… But by going through it with my coach, and um (..) going through things that were acceptable or were not, that helped me understand that a boundary really is just, um, not doing things that are not acceptable".* (Participant 4).

Participants found that being guided to find her own way of doing something was more helpful as opposed to being told what to do.

> *"So it's not like a psychiatrist where you - you are going in there and giving them all the information and then note take and give you another drug. It's that you actually have time to think about your own solutions".* (Participant 4).

Some participants found that the questions and probing that the coach used was helpful in eliciting new ideas and insights.

"...the questions they - they - they asked seemed like silly ones but you know, when you think about it, they are not silly... because sometimes you think, oh, it triggers off.. some things eh? ...You think, oh, that was a silly question, then you think again. Oh okay, oh, because sometimes if you ask the right questions, it's just triggers off things". (Participant 7).

"...if they keep probing and asking everything and also, it might just, oh, that's what that's for. Or that's why I asked it 'cause sometimes, we don't - um, well for me, not aware of things until I think about them. Oh, is that what that is?" (Participant 7).

"I mean [the coach] was good, she was always positive and sort of, gave me things to think about... it's like, sort of, you know, where you want to go from, what do you wanna do. You know, who you are doing this for? (.) You know? Um, just sort of, those sort of things... Nah, it was good. You know, it's like, you know, who are you doing it for? You know, was it for your family? Is it for you?" (Participant 6).

For one participant, using questions to challenge her was beneficial.

"Um, I think it was actually being challenged a little bit by the coach... she was never aggressive but she would put the questions to me. So what does that mean for you? Or have you thought of this? Or how do you think you should deal with it?" (Participant 4).

One participant has found that being questioned and probed by the coach has allowed the participant to come up with his own plan of action and take responsibility for the change in health behaviour.

"I like the part, uh, where the coach did not tell you what to do. There was more probing and asking a lot of good questions, uh, that made me own the actual process... I think when people tell you things, you - you - you sometimes take it or you sometimes don't. You have that choice or option or whatever it is... I think then the plan becomes your own - you own it. And then you wanna do it" (Participant 3).

Another aspect that participants mentioned, with regards to the role of the coach, was that the coach was always encouraging. For one participant, when he faced barriers in the behaviours he was trying to implement, being affirmed for what he had already done was encouraging.

"[Talking about doing chores he had listed and not being able to continue] ... And then, one o'clock I just went to bed and slept until about six. And she [coach] said, at least you've done those three... And you've completed them. So all the ones I hadn't completed, I just moved onto the next day... I was getting more done". (Participant 2).

It seemed that talking to the coach about doing the behaviour was an encouragement in itself and it helped the participant continue to engage in the behaviour.

> *"...like I would tell – [Coach], I would talk to her and she would sort of say, you know, out of 1 to 10, how do you think you'd sort of go? And I'd tell her, like, 10... And I'd actually do it... I didn't need to (.) feel that I had to do it because Caroline was coming in or she was gonna call me. Yeah. it was just getting - becoming a good habit... Keeping it, yeah, keeping to what I was gonna to say I was gonna do. And things, yeah."* (Participant 6).

A safe space created by the coach

One participant described this in in terms of the trust that existed between the coach and himself. This had helped him open up about personal issues that were impacting his health and that he needed support with. It appears that if that trusting relationship was not present and the client had not felt safe opening up, he would not have been able to be open in the interaction.

> *"And the trust that I had with [the coach]... if I didn't trust her, I wouldn't have told her some of the things that I told her... this study she was doing wouldn't have worked".* (Participant 2).

In a similar manner, one participant felt that shared experiences helped create good rapport with coach and made her feel understood. It seemed that this helped the participant connect with the client.

> *"...we had very similar, um, we kind of similar lives, as in our integrity and you know, just how you - how you are as a person, how you've been brought up and your values. And so we shared a lot of background(?) so we were - we had a good rapport... So she kind of understood things".* (Participant 5).

One participant felt safe and comfortable in the interaction with the coach because it felt more human and less clinical. It seemed that the openness of the coach in the interaction and this sense that the coach was being 'human' made the coach more relatable. This made it easier for the participant to open up.

> *"I felt comfortable. And I think a lot that had to do with the person who's allocated to me... she was very human, you know. She - she didn't come across that she was either interrogating me or trying to put her ideas on me".* (Participant 4).

> *"Um, I did feel that I was safe in the environment and I could actually vocalize how I was feeling".* (Participant 4).

"I found that - that the way the coach worked, and it's probably a method she uses, made her very approachable. And made me feel very safe… it was very human. It wasn't a clinical approach… It wasn't someone sitting there with a note pad and a clip… that human touch is what - what made it work for me." (Participant 4).

One participant felt that she could be very open with the coach because he made her feel comfortable and prompted her to be honest with how she is doing.

"…he made me feel comfortable about it too… Um, 'cause there are sometimes when you talk to people about certain things or you try things, and you don't really wanna tell them that, you know, that - didn't work. Um (.) and then, there are those who adapt quite well to what you're saying - or they kind of force you into saying, "well, come on, did you like it or didn't you like it - ?" And he [coach] was quite good at that. Which - which I was quite pleased with. He wasn't afraid to sort of push me for the answer that he knew was kind of sitting there." (Participant 8).

3.2.3   Theme Three: Awareness of health

This theme emerged in terms of the knowledge and awareness around health. Three sub-themes emerged: existing knowledge and awareness about health; learning through the HWC; and understanding the importance of looking after health. The first sub-theme highlighted that some participants had existing awareness of their health and was conscious of it before the study. However, they needed support in looking after their health. The second sub-theme highlighted that some participants gained knowledge and awareness because of the coaching. The third sub-theme showed that some participants understood the importance of health and they were aware of the consequences of not looking after their health.

Existing knowledge and awareness about health.

Some participants have indicated that they were already health conscious and seemed to be aware that they needed to look after their health. The coaching helped them to figure out how they can look after their health.

"Um, I already know what I should and shouldn't do, health-wise, for food… And exercise. But it's getting, you know, when you talk like, when I talk to [coach], you kind of motivated to - to actually do more". (Participant 5).

"I mean - you are always aware but when - when you actually talk about it, you think, hmm, actually. [Laughs]. I should be doing this." (Participant 5).

In terms of being aware about health, one participant said,

> *"I'm pretty...health conscious", and later said that, "I know what is right, what is wrong. But with a slight help can also - can be accommodated...But, uh, really inspired me [referring to coaching]".* (Participant 1).

For this participant, it seemed that HWC led him to start a gardening program. It seemed that, although he was conscious about his health, the support he received from the coaching gave him the confidence to make better choices around his health.

> *"...Quite a lot of things I knew but slightly help, as I say, it did help me...that way it teach – uh, taught me that, uh, why not go for the community gardening (..) I have to pay a bit but at least I got some new friends there... We have to plant all those things".* (Participant 1).

For one participant, prevention of health problems, in general, by engaging in preventative methods of health issues (such as going for mammograms) was very important, for herself as well as her sisters. This participant was motivated to engage in HWC because she needed support in looking after her health.

When asked what initially interested the participant about the study, the participant replied,

> *"More about health and wellbeing more than anything else. Um, I've been trying to get myself back on track."* (Participant 8).

Later on in the interview, the same participant said,

> *"I'm always preaching for my sisters about keeping their health. And I mean, anything that I need to get done, I get done straight away... Like, um, smears, mammograms... anything like that, I like to keep on track of those sorts of things. And I pressure my sisters into doing the same".* (Participant 8).

For this client, the motivation to look after health seemed to come from wanting to ensure she has done all she can to prevent having a heart attack or stroke because if not, the blame is on herself or the individual for not taking preventative measures.

> *"I know a lot of people who have, like, they'll say to me, "oh, what are you doing now?" I'm going for a mammogram. "Oh, what do you want that for?" because I like to make sure I'm healthy. "Oh I hate smears, I'm never gonna get one of those". And I say, well, you know, when you get sick, who are you gonna blame but yourself?"* (Participant 8).

For one participant, the awareness she had was not regarding health itself but about her values. Although she felt she had certain values, the coaching helped her recognize these values and take ownership of her values. Similarly, although she knew she needed to implement boundaries, the coach helped her understand the concept of boundaries and how to translate them into daily life.

> *"'Cause I always knew I should have boundaries and set boundaries, but I - because I couldn't fully understand what - what it was, I never knew if I was actually doing it or not. But she said, you are actually doing it in a way but you don't realize it".* (Participant 4).

> *"Um (..) I - I think some of the exercises were good because it actually made me think. And it actually cemented for me that I already know what I already know, what my values are".* (Participant 4).

Learning and awareness from the HWC.

Participants said that they learned about health due to the coaching sessions. The HWC made participants more conscious about their own health.

> *"Because of diabetes and (?) blood pressure has been constant. And in terms of stroke, we don't have any family history of stroke. So, I did not believe that I was a like a candidate of stroke… It did change [awareness of stroke risk]. I mean, it made me more aware and more focused and more concerned about my health".* (Participant 3).

> *"...it [participating in the study] just made me a lot more aware of, uh, things we do and eat and the consequences eh(?). 'Cause I didn't have a clue before".* (Participant 7).

For this participant, the study made her more aware of her eating habits and monitor her eating; for example, when she goes grocery shopping.

> *"It [the coaching] just helps. Um, like you just have to be more aware of, you know, things when you go shopping. When - when you look at - oh yeah, I'll just grab that and then, when you go and shopping and then, oh, better look at it properly... Just how (?) should be more aware. Do you need that? Not really".* (Participant 7).

> *" - this [HWC/coaching] is better than what I was doing. It - it was much better than what I was doing which was nothing".* (Participant 7).

For one participant, the learning came from engaging in better health behaviours and starting up new habits.

"Eating habits are better…I started - started an exercise program to get me back on track". (Participant 8).

"I've always thought I had good eating habits… But apparently not. [Laughs]. I'm a big vegetable eater and all of those sorts of things. And the healthy type of foods. But, um, when you sit down and work it out properly, I was eating too much of something that I shouldn't've been… I've - I've learned that, um, if I balance it properly, it's gonna work out a lot better for me". (Participant 8).

This participant also described how the awareness of health and the knowledge she had prior to the study had changed. It appears that the HWC clarified certain aspects of health and wellbeing and helped the participant seek out more effective methods of looking after her health.

When asked if there was any aspect of HWC that she particularly liked or found beneficial, the participant said,

"I was aware of a lot of things but not fully aware of how and they why. If(?) I learned a heck of a lot more about that… and better ways of trying to improve my health, as well". (Participant 8).

Understanding the importance of looking after health

Participants were aware of the potential impact of not looking after their health which was an incentive to monitor their health. For one participant, going to the doctors and having tests meant that he felt he had the responsibility of looking after his health. He felt other people could not make him engage in health behaviours and he would have to carry the burden of not looking after his health.

"Well, the adverse (?) report will come out if I don't. For the health and wellbeing practices. Which means black and white. The doctor can pin point this thing is wrong, that thing is wrong. You are not doing such things. So you should be doing those things. So if you don't follow then your - I just - I'll just - I'm just advising you and you are - if you want to see the sun daily, then follow this practice or else one day you will collapse and you won't be able to see the sun." (Participant 1).

"It's my health (..) and it's me who will suffer, not you. Neither the doctors. So if I don't care about my health you know what will happen. You will just advise me. The doctors will only advise me. They cannot put me in jail… But nobody can do it for me.". (Participant 1).

For one participant, the importance of looking after health was related to the deaths in the family and how it has affected his family. This, in turn, had made him more aware of his own health and seemed to have given him the incentive to look after health.

"I've got two kids. And if I go, they've got no one… Because um, since [wife] passed away, I've had another sister-in-law, my dad, my father-in-law, my mother-in-law is just about there. Um, (.) I've had quite a few people pass away. Since [wife]. And most of them are in the family and… one of my sister-in-laws had just passed away, my daughter was fairly close with. And, she's got, really no one". (Participant 2).

Similarly, for another participant, the incentive to look after health and reducing stroke/cardiovascular disease risk was very much related to longevity and being here for other people in his life.

Researcher: *"…is reducing your stroke/cardiovascular event risk important to you?"*

"Oh, definitely. I mean, I want to live long. I have children. I wanna see my grandchildren". (Participant 3)

Another participant described what it means to look after one's health and why it was important. Therefore, she perceived HWC as a positive program because it was helping her to stay healthy.

"...when you're well, you are able to function better eh? Sleep, eat well, do (?) have a good sleep and work and have energy and that… I thought it was a positive thing and.. and look at it that way… I just thought we need to be healthy... If you are healthy, you wouldn't need, um, medicine and things like that". (Participant 7).

3.2.4   Theme Four: Person-centered nature of coaching

Participants found that HWC intervention focused on the person as a whole and had a holistic approach to health. It was not just health and wellbeing that was addressed in the coaching but other aspects of the person's world.

"...it was focused on health and wellbeing because, remember, you initially had to set a goal towards your health and wellbeing. It also focused on your total wellbeing. It looked at all the aspects and then, it was - some of the worksheets, that I've done it, actually pin pointed where your areas of weaknesses, where's your areas of strength. Which one you needed to work on". (Participant 3).

"It wasn't someone sitting there with a note pad… and firing questions at you or giving you a framework of activities to do. It was actually, um, directed at me, myself, my surroundings, my life". (Participant 4).

"...we [coach and participant] had a wonderful conversation. She was at my house for an hour. And we discussed, really, um, mental health. And I had a few issues… And she gave me ways of coping with those. Or accepting things… And I was - I was under a lot of stress for a long time. And - and so she just really brought that to my attention". (Participant 5).

For one client, it seemed important for health to be approached in this way in general. There was emphasis on treating the person as a whole and to explore the underlying cause of the problem, when it comes to addressing health issues.

> *"I think that when you go to the doctor, you've got 15 minutes maximum. And you are going in there and there(?) what their doing is diagnosing the symptoms you give and then, they're giving you a medication for that… But I think actually, with the wellness and the coaching - it's more holistic".* (Participant 4).

> *"…I'd recommend having a more holistic view when you go to a doctor. I just don't think sitting - I mean if you've got a headache and you get a tablet, fine. But is that really getting to the root of - of the cause.".* (Participant 4).

Participants emphasised the importance of HWC being tailored to the person and that it might not work for some people depending on how they are as a person.

> *"…the coaching was like it was made for me. Not anybody else".* (Participant 2).

> *"I mean, for me, it's quite positive. Other people might be different… If it's suitable, if it suits you, you'll go with it. If it doesn't then you won't".* (Participant 6).

> *"…some people might not be open to it [HWC]… It's a bit like that, you know, that how we first sort of started and you are selecting all those words, you know [referring to values card activity]. To describe yourself and that they sort(?) mightn't like that sort of thing. And you might - they might think you are sort of being, um, personal, or personal business or something…'Cause [coach] and I went over it, you know, quite a lot of things. To do with the family and - and other things… people not - might not be open to that".* (Participant 6).

Additionally, one participant talked about tailoring the HWC to the participant's life at a practical level. The participant found the coach's flexibility with scheduling sessions, for example, quite useful. He described the HWC as,

> *"It does have to kind of fit people's lives".* (Participant 3)

3.2.5 Theme Five: HWC was beneficial at a personal level

Participants talked about personal issues that they were able to deal with through HWC. These appear to be major issues that clients were facing; and dealing with them seemed to have had a positive impact for them as a person, and on their wellbeing. For some participants, this seemed to have a connection to their physical wellbeing.

One participant described learning to stand up to people in her life and dealing with issues at work:

> *"I mean, it [coaching] was a huge turning point for my life. I was having trouble at work at that time and - and, um, it just made me a lot stronger as a person and able to deal with those issues. And - and I guess if you don't have means of dealing with the issues, that's when the pressure builds up, and your blood pressure goes up... yeah, I think it just gave me healthy way of stepping back a bit".* (Participant 4).

This participant talked about struggling with anxiety and learning to manage it which helped her change the way she approached a problem.

> *"...it [coaching] was actually for me, a turning point. It actually empowered me to be able to deal with those things, rather than just say nothing and having that anxiety and anger churn inside. Which actually is really unhealthy."* (Participant 4).

> *"So, rather than just ferment and think, oh goodness me, bite my fingernails and I don't know what to do. I actually thought, well, there are avenues. I can get help. There is support. Um, so I think that - the whole way of thinking - the thought process has changed".* (Participant 4).

One participant talked about an issue she was facing with a family member and how the coaching helped her approach it in a different way.

> *"Yeah, I was - yeah, because you do - it is stressful. And very upsetting, which affects your whole - your whole life, really, if you focus on it... But, um, [coach] made me - after we talked the first time, she said she sounds very damaged. And so, I found that helpful. So instead of focusing on this woman who's just horrible... It made me look at her in a new light.".* (Participant 5).

One participant spoke about grieving a loved one and how that was impacting his wellbeing. He was able to receive support for this through the coaching (for example, getting counselling support after the issue came up in coaching).

> *"Because some of the problems that I put away, they had come out and (..) [coach] had helped me with them".* (Participant 2).

> *"...all the stuff I've put under the carpet was like a pressure cooker. And I think the pressure cooker was ready to burst. I think if I wasn't offered the course, it would have burst and I might not be here".* (Participant 2).

For one participant, the coaching was helpful in addressing a problem her family had faced at the time which compromised their safety.

"And I says, oh my gosh, this is terrible. You can't, you know, sort of have this sort of happening. And then, so I sort of, um, looked at things that I could do to keep myself safe and stuff… [the coach] would come in and say, you know [clears throat], you know, sort of what's most important. And then, gave me ideas of other things that I needed to do. To make sure this was going to happen – we were going to be safe". (Participant 6).

Participants also described, in general, improvements in their self-confidence and the way they interacted with other people, due to the HWC.

"So, so I think the end result of - of coaching and on this wellbeing thing, it builds up a confident person… probably an unintended consequence, I don't know… but you become confident because you are self-aware. You are self aware…" (Participant 3).

"I enjoyed it because it made a difference. Um, it gave me strength. But (?) even - even though the nine sessions are finished, I feel that I'm changed as a person. That I am lot stronger". (Participant 4).

"I think it also helped me to be less passive aggressive. It helped me actually say what I really felt and meant, not by being aggressive, but actually if something wasn't okay, I would say it wasn't… It's actually changed the way I approach things; it's made me a stronger person". (Participant 4).

"…I tend to have been the sort of person who can easily find the negative in things. You know, and I don't tend to do that now". (Participant 4).

3.2.6 Theme Six: Practical strategies in HWC

Participants mentioned practical strategies in the coaching sessions which were helpful. For one participant, it was goal setting that was useful.

"I found the program very beneficial… Because it made me set goals and look at goals. And I almost achieved it". (Participant 3).

When asked if there was anything in HWC that the participant liked or found beneficial, he said,

"I think - I think it's - it's - it's the setting of the goal, you know. Uh, in terms of improving your health". (Participant 3).

Another participant mentioned that having a diary and writing things down was helpful for her.

"So I started - I had a diary… it's still sitting out there but I just had a diary and used that instead." (Participant 6).

> *" You know, and having to write it down. I wish I'd brought my diary…'Cause(?) there was so much in it."* (Participant 6).

Writing down things seemed to have helped the participant to maintain her health behaviours and in looking after her health.

> *"…just to keep on doing, you know, um, things that I was gonna say I was going to do. And writing them down was the other thing. And sort of, keeping at it."* (Participant 6).

One participant talked about the resources and information given out in HWC which was helpful for her and made her feel supported.

> *"Support. You know? Support and that, um (.) there was, um, how do you say it? - Um, there was places available. You know? List of places available - and, like, there was pamphlets. With information on it. And - and there was phone numbers that, um, was called. Cards given out.".* (Participant 7).

Participants found that doing exercises to reflect on their values was useful.

> *"I - I think some of the exercises were good because it actually made me think. And it actually cemented for me that I already know what I already know, what my values are".* (Participant 4).

For one participant, this was something that seemed to have stayed with her after the HWC had ended.

> *"…she had cards and - oh, there were hundreds of them…. And she laid this mess(?) cards over the dining table and she asked me to pick all sorts of things and - and then I had to put them in - in order of importance… they were all just words on cards and one would(?) might be just thoughtful, you know. So they were quite random things. But, um, just made you think, really. And every now and again, I think, hmm, now what did [the coach] say about such and such? And I sort of, dwell on it for a little and think, hmm, what would she do and what would she say".* (Participant 5).

For one participant, some of the exercises she had to do in the coaching session appeared to be quite overwhelming and made the HWC hard for her (she described that the HWC was initially difficult for her, in general). However, later on in the interview, she did mention that not knowing what she was getting into and the novelty of the HWC made her quite nervous about it. Therefore, this may have affected how she perceived certain strategies in the coaching at the start of HWC.

When asked what made HWC hard for her initially,

Participant 6: "…just the questions and things. Like choosing, you know, she had many, many words and they had to describe, you know, sort of myself and - and things that I wanted to do and there were so many to choose from. And then after that you had to choose so many, like twenty, then you had to cut it down to ten - or five. You know, it's like, oooh…"

Researcher: : "Are you referring to the values cards?."

Participant 6: "Yes, yes, yeah, yeah. That sort of stuff, yeah".

Later on in the interview, the participant said,

"…just at the beginning, you know, it sort of just, not knowing what I was really getting into… Um, I was sweating [Laughs]… oh, it wasn't hard but just, because it was new. You know, that sort of thing. I didn't know what I was really in for". (Participant 6).

Chapter 4 Discussion

The aim of the current study was to explore the experiences of health and wellness coaching in a multi-ethnic sample. Thematic analysis identified six themes including: 1) Ethnicity/culture not directly relevant to health and wellbeing; 2) The importance of the coaching relationship; 3) Awareness of health; 4) Person-centered nature of coaching; 5) HWC was beneficial at a personal level; 6) Practical strategies in HWC. The findings of the current study will be examined in terms of its similarities and differences to existing literature. The strengths and limitations will be discussed; implications of the findings and future directions will also be explored.

3.3   Ethnicity/culture not directly relevant to health and wellbeing

The first theme highlighted that participants did not feel their ethnic identity was relevant to health and wellbeing; and it seemed that the intervention felt culturally safe for participants. HWC was consistent with cultural values at a personal level but it was, in general, not an intervention that was dependant on an individual's ethnic identity. However, participants' cultural worldview appeared to have indirect influences on health and wellbeing; for instance, how cultural norms can influence an individual's approach to health, which was addressed in HWC. The HWC coaches in the current study were provided cultural competency training. As coaches were trained to provide a culturally appropriate service, this may have facilitated a space for participants where they felt culturally safe and their cultural needs were taken into account, if such needs emerged in the coaching (Wilson, 2008).

Cultural competency is an important part of working within a multi-ethnic community as ethnic identity can have an impact on health beliefs and on decision-making (Brach & Fraserirector, 2000). Clinicians convey a better attitude towards the client, possess skills to interact better with clients, and have shown to utilize person-centered approach, when they have had cultural competency training (Beach et al., 2005). Additionally, some research has shown that there is increased patient satisfaction when clinicians have completed cultural competency training (Beach et al. 2005). One study measured factors of cultural competence including cultural awareness, cultural knowledge, cultural skill, cultural encounter and cultural desire (Castro & Ruiz, 2009). There was a positive association between patient satisfaction (in Latino patients) and cultural competence of the physician within a healthcare setting; cultural skill, cultural

encounter, cultural desire and cultural knowledge were all positively associated with patient satisfaction (Castro & Ruiz, 2009).

Physicians were assessed on components of cultural competence, including motivation to gain knowledge about other cultures that are relevant to their community and practice (Paez, Allen, Beach, Carson, & Cooper, 2009) and "power and assimilation attitudes" (Paez et al., 2009, pp 496); this referred to being aware of the power imbalance that exist between majority white cultures versus minority cultures. Patient satisfaction and other features of the interaction with the physician (such as respect conveyed by the physician, how much they trust the physician and patient participation) was also measured (Paez et al., 2009). Patients presented with higher levels of satisfaction when they felt that their physician had a higher level of motivation to learn about other cultures and felt that the physician was more facilitative in the relationship. Patients' perception of how much their physicians facilitated the patient in the interaction was positively correlated with the physicians' level of power and assimilation attitudes (Paez et al., 2009). Patients also reported a higher level of satisfaction, and was more willing to contribute as well as seek out information within the relationship, when physicians illustrated more culturally competent behaviours. This illustrates the significance of the attitudes and behaviours endorsed by cultural competence training in establishing a more effective relationship and providing a space for patients to better engage (Paez et al., 2009).

3.4   The importance of the coaching relationship

The current study found that the relationship with the coach was an essential part of the HWC experience, and this benefitted individual's health and wellbeing. The dialogue between the coach and the participant was highlighted as one of the key aspects of this relationship. Additionally, dialogue with the coach came up as an important part of one participant's cultural values. This reinforces the idea that principles of the coaching model may be consistent with people's cultural values and worldview. This is congruent with previous literature. For example, a 2013 study which examined a dietary intervention to reduce cardiovascular disease risk found that tailoring interventions to suit cultural background was positive for clients of a South Asian origin (Sathe et al., 2016). Another study by Anez and colleagues (2008) showed that incorporating Latino cultural values during motivational interviewing improved participants' readiness to change in a mental health setting.

Dialogue was emphasised as an important part of the coaching relationship because people seemed to feel they were heard in their interaction with the coach. This is congruent with the health coaching approach (Huffman, 2009), as individuals highlighted feeling understood and validated in the dialogue that they had with the coach. This is an aim of active listening in the coaching approach (Huffman, 2009). Utilizing techniques such as open-ended questions, affirmations, reflective listening and summarizing can promote conversations about health behaviour change, and support clients to enhance their engagement in the coaching interaction (Huffman, 2007; Vader, Walters, Prabhu, Houck, & Field, 2010). Therefore, in utilizing these techniques in the current study, the coach could have validated participants, and this may have allowed participants to be more open and share more in the interaction.

Stelter and Andersen (2018) highlighted the importance of meaning-making in dialogue. At an existential level, finding the significance of certain situations of an individual's life forms the foundation for human functioning. One way to achieve this is via the individual's relationships and dialogue with social others (Stelter & Andersen, 2018). Dialogue can also allow individuals to understand themselves (Stelter & Andersen, 2018). Sharing experiences allows individuals to approach a situation together and with different and novel perspectives; leading to different narratives of the same situation (Stelter & Andersen, 2018). In the current study, it could be that sharing experiences normalized the health issues and gave clients a space to talk about them. Sharing experiences through dialogue may have led to meaning-making of experiences and allowed participants to perceive the issue in different ways. This could have enhanced the participants' understanding of the health issues, and of themselves. Thus, leading to reciprocal learning and better ways of solving the issues within a collaborative relationship.

A single case study of coaching for weight loss conducted by Stelter (2015) presented similar experiences of meaning-making in dialogue and emphasised the importance of sharing experiences and talking about the health behaviour. The client in the case study identified patterns, with regards to her eating, through the conversation she had with the coach. For instance, how eating was associated with emotional and psychological aspects such as loss of control and reduced self-confidence; and how her employment situation was affecting her health overall (Stelter, 2015). The client has also reflected that it was useful to discuss the weight loss in relation to other aspects of her life (Stelter, 2015). This dialogue, within a collaborative relationship with her coach where

the coach was also able to reflect and impart their own view of the issue, allowed her to better understand her relationship with food and reframe weight loss as a way of looking after oneself, as opposed to taking something away from oneself. This seemed to have been an essential part of changing her eating behaviour (Stelter, 2015).

The coach was described as supportive and encouraging; and participants felt that the coach did not tell participants what to do but rather, acted as a guide. This is congruent with findings from a qualitative study examining health coaching for diabetes management; the bond between the coach and individual was reported as being caring and supportive, and the clients felt their autonomy was respected in the relationship (Howard & Hagen, 2012). Howard and Hagen (2012) also found that this kind of relationship allowed the individual find an "inner coach" (Howard & Hagen, 2012 pp 68). This enabled clients to learn how to deal with issues, using their own insight and knowledge, and for other clients, this insight was developed through shared discussion with the coach (Howard & Hagen, 2012). A similar process was described in the current study in terms of the role of the coach. The coach helped clients to explore the areas of health that they need help with, the barriers towards health behaviour change; and to gain insight and a different perspective through probing and questioning (a useful method in the coaching process; Huffman, 2009). This is consistent with the active learning method utilized in HWC, as opposed to the coach advising the client about health behaviours (Bachkirova, Spence, & Drake, 2016).

An important aspect of the coaching relationship is the safe space created by the coach. The coach was described by one participant as being "human". This may have been a way that the client is describing the coach's genuineness (Bachkirova et al., 2016). There was also rapport established between the participants and coach; and the participants felt they could trust the coach. This could be because the coach conveyed empathy, understanding, genuineness and effective listening, which contributed to forming a trusting relationship (Bachkirova et al., 2016). This, in turn, provides a sense of safety for the client to open up in the relationship (Bachkirova et al., 2016).

Evidence suggests that therapeutic relationships can be enhanced by utilizing person-centered care strategies, such as active listening skills, conveying empathy and care, and when clinicians show awareness of the client's emotions (Pinto et al., 2012). The clinician's interpersonal skills are associated with establishing a strong therapeutic alliance with the client. Clients are more likely to express emotions in therapy, to work

together with the clinician and disclose within therapy, if the clinicians utilize effective interpersonal skills that convey empathy, genuineness, acceptance and the sense that the therapeutic relationship is a partnership (Moyers, Miller, & Hendrickson, 2005). Essentially, clients are more likely to be transparent and share uncertainties or aspects in the coaching they disagreed with, if a trusting relationship is formed between the coach and the client; thereby, increasing the efficacy of the coaching intervention (Thom et al., 2016). This is important because the therapeutic relationship is the basis of creating effective change and in helping individuals to learn how to look after their health (Bachkirova et al., 2016; Wolever et al., 2013).

3.5   Awareness of health

Another theme which was identified in the current study was awareness of health, with some participants expressing that they were conscious of their health issues but felt they needed support to look after their health. The health coaching approach involves exploring the values and beliefs of participants as this is the basis of an individual's motivation for change (Huffman, 2009). It appears that HWC allowed participants to use the values and beliefs they already possessed and put that into action. For instance, one participant knew that prevention was important to her but HWC allowed her to take further action in looking after health and preventing diabetes. Another participant was aware of her values and HWC helped her to take ownership of those values; for instance, by implementing boundaries in her life. One participant, who already felt he had a good awareness of health, found through HWC that gardening was a technique he could use to look after his health. This indicates that although participants were aware of health, HWC has supported them to find their own way of looking after their health.

This is consistent with prior research. A 2013 study by Tillman examined a participant who engaged in health coaching alongside an educational program to improve hypertension. The coaching helped the participant identify how to utilize the strategies she learned in the educational program. For this client, the health coaching stimulated her to find ways of engaging in health behaviours that was most suitable for her (Tillman, 2013). Interventions have a higher efficacy when the healthcare recommendations are tailored to the person's life situation and unique health issues (Tillman, 2013).

Participants also gained more knowledge through the coaching. In a study assessing diabetes self-management, it was found that when people were educated about the

importance of looking after their health, this altered their perspective of health and led to better disease management (Liddy, Johnston, Irving, Nash, & Ward, 2015). Similarly, participants in the current study found that learning more about health was associated with becoming more health conscious and improved health behaviours. Integrating educational elements with counselling or other behavioural change methods (such as motivational interviewing or cognitive behavioural strategies for behaviour change) is effective for eliciting health behaviour change in cardiovascular disease prevention (Artinian et al., 2010). Higher levels of physical activity were reported in an older adult population when an intervention that combined brief advice about physical health alongside ongoing counselling was implemented, as opposed to providing just the brief advice on physical health (Pinto, Goldstein, Ashba, Sciamanna, & Jette, 2005).

The findings of the current study may be explained by the Information-Motivation-Behavioural Skills model. This model suggests that in order to elicit health behaviour change, individuals need to have the relevant information, the motivation and the necessary behavioural skills (Fisher, Fisher, & Harman, 2003). This model has been useful in analysing medication adherence behaviour in diabetes (Mayberry & Osborn, 2014). Mayberry and Osborn (2014) found that motivation and learning information regarding medication compliance was associated with compliance to diabetes medication; and this relationship was mediated by adherence to behavioural skills. Additionally, Wolever and Dreusicke (2016) examined an integrated health coaching approach for compliance to diabetes medication. The authors noted that health coaching allows clients to explore behavioural skills that are suitable for the client, alongside exploring their internal motivation for behaviour change. Thus, it is suggested behaviour skills learned through coaching persists for longer because they are often incorporated and associated with the client's inherent motivation (Wolever & Dreusicke, 2016). Hence, in the current study, participants learned about their health through HWC which could have increased their internal motivation, alongside developing behavioural skills that are unique to participants. This could have increased their likelihood of changing their health behaviours.

It was also suggested that coaches need to be cautious when integrating educational information, to ensure that the person-centered nature of the coaching is not lost (Wolever et al., 2013). The theme that has emerged in the current study, in terms of learning more about health and how it has affected individual's health behaviours, may indicate that this balance was achieved in the HWC intervention. Participants gained

knowledge about health through the coaching sessions; and this seemed to have been a positive and helpful experience. This suggests that the coaches provided relevant information about health in a person-centered manner, essentially promoting their learning within the coaching relationship (Bachkirova et al., 2016).

The current study also found that participants understood the importance of health and the effect of engaging in poor health behaviours. For participants in the present study, not looking after health was related to their inability to function optimally and increased their risk of disease and potentially death; for example, the fear of dying early and how this would affect their families. Liddy et al. (2015) found that health coaching helped participants become aware of the impact of diabetes on their physical health. In contrast, in the current study, participants already understood the consequences of not looking after health; this was related to feeling responsible for their own health and provided an incentive to look after their health. This can be compared to Wolever et al. (2010), which found that when clients were asked how the coach can help sustain motivation and responsibility for health behaviour change, one of the methods identified by clients was referring to personal anecdotes related to consequences of not managing diabetes. Similarly, in the current study, awareness and understanding of the consequences of poor lifestyle choices seemed to have made participants feel more responsible and motivated to change health behaviours.

Evidence suggests that, generally, there is a decreased level of stroke awareness (Jones, Jenkinson, Leathley, & Watkins, 2009). Individuals who were at risk of stroke or who previously had stroke did not necessarily present with a higher level of stroke knowledge (Jones et al., 2009). In a NZ population, there is a moderate understanding of stroke (in terms of knowledge about stroke symptoms, risk factors and how to manage risk factors; Bay et al., 2015). Individuals who identified as Maori, Pasifika and Asian had reduced stroke awareness as compared to NZ European (Bay et al., 2015). The current study did not compare the participants' baseline knowledge of stroke and cardiovascular disease to post-intervention, although those who indicated that they already had an awareness and understanding of the consequences of not looking after health were of NZ European, Pasifika and Asian ethnicities. Therefore, the findings of the current study could not indicate whether there was a gap in knowledge across ethnicities and if this may have been similar or different to previous studies. Additionally, Bay et al. (2015) explores specific stroke knowledge within a large population sample whereas, in the current study, the participants' awareness of health

(in terms of the consequences of poor health choices) seemed to be more general; for instance, understanding that the participant can sleep well and have more energy if they look after health, or that death and disease can result from not looking after health.

There is currently limited awareness and knowledge in NZ, in terms of stroke and cardiovascular disease, although stroke incidence and the effects of stroke can be reduced if there were higher levels of awareness and knowledge (Feigin et al., 2014). More research on stroke knowledge and awareness is particularly useful for ethnic minority groups, as this could contribute to forming culturally relevant programs for cardiovascular disease and stroke prevention (Feigin et al., 2014). Therefore, the findings from the current study provides an incentive to further explore how stroke awareness and knowledge could fit into HWC. Future research could explore whether awareness and knowledge differs between ethnic groups at baseline and how this changes after HWC.

3.6   Person-centered nature of coaching

Another theme identified in the current study is that the holistic approach to health in HWC was beneficial to participants. HWC involved addressing the underlying reasons related to health behaviour change. Participants seemed to feel that physical health cannot be treated in isolation to other aspects of health. This is consistent with the HWC approach. HWC is based on motivational interviewing techniques, and is focused on the person and what they want in the process of health behaviour change (Huffman, 2009; Rollnick & Miller, 1995). This approach is about guiding clients to make changes in the context of their life situation (Wolever, Jordan, Lawson, & Moore, 2016) which is something that participants seemed to have related to immensely in the present study. Additionally, the person-centered nature of HWC can be demonstrated by tailoring the intervention and this makes people feel understood and acknowledged (Wolever et al., 2013). In the present study, the coaching was perceived as successful by participants because they felt it was individually tailored to their needs. One participant noted that discussing personal issues may not work for some people; this suggests that participants need to be comfortable with what occurs in the coaching and so, reiterates the importance of tailoring it to the person's needs.

This finding may be explained by self-discovery, which is a process involved in health coaching. In this process, coaches guide clients to learn more about how they perceive the health issues, how the health issue is associated with their general health and

wellbeing as well as their values; and find ways of overcoming the issue (Wolever et al., 2013). This is illustrated in an integrated health coaching intervention for diabetes management, where exploring the wider context of the client's life was important in changing health behaviours. For instance, using strategies such as a Wheel of Health to identify various aspects of a client's life and using mindfulness to become more present with regards to what's occurring in the client's life at that moment (Wolever et al., 2011). This intervention involved exploring client values and overall life purpose to form the client's own vision of health and wellbeing; this vision is considered in relation to certain health behaviour that needs to be altered (Simmons & Wolever, 2013; Wolever et al., 2011). This could lead to eliciting goals that are either related or not related to the health behaviour; however, the key is that clients are thinking about health in a more contextual manner and choosing to work on what is most meaningful for them (Simmons & Wolever, 2013; Wolever & Dreusicke, 2016).

Several studies have demonstrated how interventions which are tailored specifically to the client can improve outcomes. For example, a randomized controlled trial that utilized an integrated health coaching intervention illustrated higher levels of patient engagement, increased compliance to medication and enhanced glycemic control (Wolever et al., 2010). This intervention was tailored to the clients' need, as they elicited their own goals and decided what they wanted to work on (Wolever et al., 2010). Another study reported a decrease in cardiovascular risk in patients (who were identified as high risk) when a personalized health planning intervention was implemented by coaches. A potential explanation for the aforementioned findings may be because the intervention led to higher levels of exercise and enhanced weight loss (Edelman et al. 2006). The personalized health planning intervention involved examining client values, alongside developing various strategies (such as relaxation strategies and communication skills) and patient education. This intervention also allowed clients to choose what they wanted to work on, and the support and recommendations on how to enhance eating behaviour was tailored to the client's need (Edelman et al. 2006). Furthermore, Howard and Hagen (2012) illustrated that participant found it unhelpful when the interaction with a health professional made them feel like they were looked down on and treated like children. Clients' felt it was essential that the coach respected their independence and ability to choose what they wanted to do in terms of managing diabetes (Howard & Hagen, 2012). Hence, the

findings of the current study are consistent with the existing evidence, as the current study also noted the importance of the holistic and tailored nature of HWC.

3.7   HWC was beneficial at a personal level

The current study found that HWC was beneficial for addressing participants' personal issues that extended beyond just the physical health issues. When the intervention involved a holistic approach, where different aspects of the participant's wellbeing are explored (Bachkirova et al., 2016), it is likely that ongoing personal issues emerges in the coaching sessions. Some issues that participants mentioned (for example, grieving for a partner or struggling with anxiety) were related to the physical health issues that the individual was struggling with. Other aspects of the client's personal life, such as family problems and improving the way they interacted with people in their life, was not directly related to the health issue.

A key aspect of the coaching relationship is trying to understand the client's worldview. This is an essential precursor for creating lifestyle change and maintaining that change (Miller & Rollnick, 2012; Stelter & Andersen, 2018). Coaching, in general, is associated with a positive psychological impact; gaining more self-insight was a part of the psychological benefits of coaching (Grant, 2014). As coaching involves reflecting on daily activities associated with client goals as well as reflections within the coaching sessions, this seemed to have elicited higher levels of self-insight (Grant, 2014). In a single case study, examining a coaching intervention for weight loss, a similar process to the current study's findings occurred. When exploring the client's eating behaviour in the coaching interaction, other personal issues were explored (Stelter, 2015). For instance, the client gained insight into how she felt about her job and needing to change her job. The client was also able to address the anxiety and stress she experienced due to her job and how this affected her eating (Stelter, 2015). In relation to the current research, gaining insight into one's health behaviours could have naturally led to addressing personal issues that could have had a direct or indirect influence on health behaviours.

Furthermore, addressing personal issues could have been an important part of the health behaviour process, as these issues seemed to be stressful and was a priority for participants. In a coaching intervention for diabetes disease management, the coaches encouraged clients to elicit goals in the context of their wider life; this could include goals associated with their health behaviours and/or goals associated with other aspects

of the client's life, such as relationship issues (Wolever et al., 2010). In this study, participants engaged better in the health coaching and illustrated a change in behaviour; levels of perceived stress were reduced and participants reported enhanced quality of life. The authors note that focusing on issues (and eliciting goals in relation to these issues), which is a priority for the client, ensures that barriers and stressors that could be hindering health behaviour change is initially addressed (Wolever et al., 2010). For instance, dealing with personal issues, such as grieving a loss, may need to be addressed first before health behaviours are addressed. This could ensure clients are not pushed into changing before they are ready (Wolever et al., 2010). Additionally, decreasing stress and learning how to cope with other situations could indirectly effect metabolic control in diabetes, and allow more time to engage in health behaviours. It could also increase self-confidence and motivate clients to change health behaviours (Wolever et al., 2010). Similarly, in the current study, addressing personal issues that was a priority for the participant could have relieved them from other life stressors, helped them cope better with life issues, and increased their self-confidence and capacity to change.

3.8   Practical strategies in HWC.

The current study found that practical strategies used in coaching sessions, such as goal-setting and keeping a weekly diary, were beneficial for maintaining health behaviours. This supports previous findings which suggest goal-setting is a key aspect of the HWC intervention (Huffman, 2007; Wolever et al., 2013), with a significant association between goal-setting and the success of a coaching intervention (Grant, 2014). A 2011 study found goal-setting was effective in health behaviour change (Artinian et al., 2010), in the self-management of diabetes (Naik et al., 2011); in chaging diet, physical activity levels and in weight loss (Bennett et al., 2005). Additionally, incorporating strategies to promote feedback increases the efficacy of motivational interviewing based methods for health behaviour change. This could include self-monitoring of the health behaviours; and integrating goal-setting with self-monitoring techniques, such as keeping a diary, can further increase the efficacy of motivational interviewing based interventions (Morton et al., 2015).

For one participant, the resources and information provided in HWC was useful. Content education is the provision of information regarding the exercises utilized in the coaching intervention and the reasons for their significance. This allows clients to comprehend and acquire knowledge with regards to the activities they engage in (Wolever et al., 2013). Integrating educational elements with behavioural change

interventions (for example, motivational interviewing) can be an effective strategy in cardiovascular disease prevention (Artinian et al., 2010; Borrelli, Riekert, Weinstein, & Rathier, 2007). Health information can be provided in such a way that it is comprehended better by patients, when incorporated with motivational interviewing strategies. This is because information is conveyed in an empathic way with a focus on the client's concerns and how the information is comprehended by the client (Borrelli et al., 2007). This provides further support that the necessary information provided within a collaborative relationship is more useful than the traditional way of providing information as a health expert (Howard & Hagen, 2012; Huffman, 2007; Wolever et al., 2013).

For one participant, the exercises included in the coaching process, such as using values cards to identify core values, were overwhelming at the start of the intervention, though this improved overtime. This suggests that there needs to be awareness around how comfortable the client is when trying out different strategies, and clients' may need support to ease into these strategies. This reinforces the need to assess why individuals may not be comfortable with strategies; and collaborate with the client in terms of how to address and rectify the issue (Huffman, 2007). This could be about evaluating whether client is ready to change and tailoring the strategies according to what the client wants.

Evidence suggests that strategies utilized for behaviour change needs to be consistent with the client's level of readiness to change (Morton et al., 2015). Assessing client's willingness to change is important because client's can feel ambivalent about altering behaviours (Stott, Rollnick, Rees, & Pill, 1995). Recognising this ambivalence allows client to address it and process the problem at the cognitive level; this can facilitate conversations about change and increase motivation (Linden, Butterworth, & Prochaska, 2010; Stott et al., 1995). This kind of exploration ensures that health behaviour change occurs at the client's own rate of change (Stott et al., 1995).

Additionally, it is important that the client's priorities for change is consistent with the clinician's; this ensures that the client is working on issues that is most relevant for them (Emmons & Rollnick, 2001). Adapting strategies for behaviour change based on the level of readiness to change can ensure that the agenda of the clinician is more congruent with the client's agenda in terms of health behaviour change. This can increase the efficacy of the intervention as the client is less likely to show resistance to

the intervention (Britt, Hudson, & Blampied, 2004). Furthermore, agenda setting leads to higher levels of patient satisfaction and enhanced health outcomes (Borrelli et al., 2007). Working from the client's agenda also ensures that clinicians are not imposing change (which can lead to resistance; Hettema, Steele, & Miller, 2005). Howard and Hagen (2012) also highlighted the importance of giving clients the independence of making their own choices with regards to their health behaviours, and supporting the choices that clients make, even if the coach does not agree with these choices.

However, it was noted that, unless the clinician motivated clients to voice their agenda, client's may not be as forthcoming with their agendas or express what they need in a medical setting (Barry, Bradley, Britten, Stevenson, & Barber, 2000). Therefore, it is important to ensure that this is elicited in the process of health behaviour change (Borrelli et al., 2007). Hence, comparative to existing evidence, the current study provides support that it is important to be aware of the client's willingness to change, to adapt strategies to their own pace and to work according to the clients' agendas. It might also be useful to encourage the clients' to elicit their own agendas, as part of the health behaviour process, especially if they are uncertain or show reluctance in engaging.

For some participants, strategies (such as doing the values card sort task) were useful in reflecting about themselves and their health during HWC. The values card sort task allows participants to explore their values and order their values in the order of importance (Miller & Rollnick, 2012). One reason for exploring values is that often people's daily behaviours can oppose their values. Exploring values can help bridge this disparity (Miller & Rollnick, 2012) because it allows clients to associate their health goals to what is important in their wider life (Wolever et al., 2010). This was demonstrated as being an effective process in an integrated health coaching intervention for diabetes management (Wolever et al., 2010). Therefore, addressing these discrepancies allows clients to find their own reason and motivation to change health behaviours (Britt et al., 2004). A similar process could have occurred in the current study; these strategies could have helped clients identify discrepancies between behaviour and values, which was useful in altering health behaviours.

3.9   Limitations

A limitation of this study is that only eight participants were interviewed. A larger sample size may have been useful as 15 is the minimum recommended size for qualitative studies (Mason, 2010). This was a recommendation mentioned in Mason

(2010) which examined PhD research projects and other studies (and not Master's thesis). Given the scope of the current project, as a Masters of Health Science thesis, there was limited time to interview a larger sample size. However, it was noted that whether the data is worthwhile is determined by the quality of the data and not necessarily the sample size (Mason, 2010). As the findings of the current study provide support to the existing literature and is of value, this may not be an essential limitation for the current study.

Another limitation to this study is that the cohort of participants could have been more diverse. There were three NZ Europeans (two females and one male), two Asian males (both identified as Indian), two Pasifika females (one identified as Niuean and the other as Tongan) and one Maori female. Although this was a reasonable spread of different ethnic backgrounds, there could have been more variety to increase the different experiences that were examined. For instance, more evenly spread males and females within ethnic groups, more participants per ethnic group, and more specific ethnic groups (for example, a wider range of specific Pasifika groups or Asian groups). This could have increased the variety of experiences captured in the data; thus, increasing the transferability of the data (Thomas & Magilvy, 2011). Therefore, future studies might consider including a more diverse cohort, with more participants representing each ethnic group and a larger variety of ethnic backgrounds.

More representation of the Maori cohort would have been useful as there was only one Maori participant in this study. Maori people have marked disparities in stroke incidence compared to NZ European (Feigin et al., 2006; Feigin et al., 2014; Feigin et al., 2015) and tend to have experiences of health services that are culturally inappropriate; this contributes to the health issues that Maori people experience (Wilson, 2008). Therefore, including more Maori participants could have enriched the experiences explored in the study and increased the transferability of the data (Thomas & Magilvy, 2011). This could be a consideration for similar studies conducted in the future; to include more Maori participants, in order to capture their unique perspectives of HWC.

3.10 Strengths

Reflexivity was demonstrated in the current study. Reflexivity enhances the credibility of the findings and ensures rigour is maintained (Darawsheh, 2014; Thomas & Magilvy, 2011). The researcher demonstrated reflexivity by being transparent (as indicated in the

methods section) about the worldview that they hold and how this might affect their research process. The researcher also identified and explained the rationale for the use of the research paradigm and the method utilized to analyze the data.

The current study demonstrates dependability to an extent because there was an audit trail regarding the research process (Thomas & Magilvy, 2011). For instance, the aim of the study was clearly stated with a rationale; the methodology clearly indicates how participants were recruited and the process of data collection. The researcher's comments were included when the initial coding was conducted during thematic analysis, demonstrating an audit trail of the data analysis. A method to further enhance the dependability of the current study, is to have peers engaging in analysing the data (Thomas & Magilvy, 2011); this was not conducted in the current study although the final report of the findings was reviewed by the research supervisor. An increase in dependability might also be achieved if the study was repeated and compared to the current study's findings (Thomas & Magilvy, 2011); this was not conducted with the current study.

The current study utilizes semi-structured interviews. This is a strength because the questions included in the interview are standardized to a certain extent (Barriball & While, 1994). The same questions are being asked with all participants but there is still space to clarify and to explore deeper when participants' answer (Barriball & While, 1994). The interviews were also conducted in person. This was an advantage because face-to-face interviews provides a space to build rapport and for more organic conversations (Irvine, Drew, & Sainsbury, 2013). The researcher can also note significant non-verbal aspects of the participants, such as body language, in a face to face interview (Irvine et al., 2013).

3.11 Implications of the study

The current study illustrates that participants are receptive to a person-centered approach; that working from a client's agenda and addressing what the client wants in health coaching, such as personal issues they have, is beneficial for health behaviour change. This has been supported by similar findings in previous research (Wolever et al., 2010; Wolever et al., 2016), including in cardiovascular disease prevention (Edelman et al., 2006). The current study also reinforces the importance of the coaching relationship, highlighting aspects of this relationship that contributes to the efficacy of HWC, as perceived by clients. For instance, meaning-making and sharing experiences

through dialogue; the role of the coach as supportive, encouraging and in facilitating learning and change; and making people feel safe in the relationship. Similar findings have also been illustrated in previous literature regarding health coaching and/or health behaviour change (eg. Howard & Hagen, 2012; Moyers et al., 2005; Stelter, 2015; Thom et al., 2016).

However, the current study makes a unique contribution to existing literature by illustrating that these factors are relevant when utilizing a HWC intervention for stroke and cardiovascular risk prevention, specifically, in a multi-ethnic NZ population. This is important because there is limited research evaluating the experiences of HWC within the stroke and cardiovascular disease prevention literature, particularly in a multi-ethnic NZ population (Mahon et al., 2018). Therefore, this research provides evidence for the use of HWC in NZ for cardiovascular and stroke disease prevention and can be used to inform future implementation of HWC in NZ.

Additionally, previous research noted that there is a need to better comprehend the specific features of health coaching and of how health coaching can be implemented in a wider range of populations for different conditions (Olsen & Nesbitt, 2010; Wolever et al., 2013). There is also a need for more qualitative research on health coaching (Olsen & Nesbitt, 2010). The findings of the current study do provide a better understanding of components of health coaching, such as a deeper understanding of the coaching relationship and participants' awareness of health (such as how they learned about health and developed awareness through HWC). It does provide an understanding of HWC from the perspective of the participants, as a qualitative study. Hence, the current research is potentially contributing to an area that is lacking in the health coaching research.

The current study illustrated that cultural beliefs did not directly impact the experiences of the participants. Clients' cultural needs seemed to have been met in HWC, implying that HWC was culturally sensitive. However, cultural beliefs did have an indirect influence on health and wellbeing. For instance, one participant felt that his cultural norms influenced his tendency to prioritise other people before him, which affected his health. The effect that cultural competency has on the quality of communication between clinicians and clients in health interventions is illustrated in existing literature (Beach et al., 2005; Dovidio & Fiske, 2012). The current study contributes to the existing findings by illustrating that having cultural needs met via HWC, for stroke and

cardiovascular disease prevention, is important. This is an important finding because there is currently limited evidence supporting the use of HWC in a multi-ethnic community (Baldwin, 2015; Margolius et al., 2012; Sathe et al., 2016), although there are ethnic disparities in stroke incidence (Feigin et al., 2006; Feigin et al., 2014). Therefore, the use of a culturally sensitive HWC intervention may help reduce these disparities because individuals of any ethnic background would be more receptive to stroke and cardiovascular disease prevention via HWC if it is more culturally sensitive.

In terms of future research, a group HWC intervention, to reduce cardiovascular disease and stroke risk in NZ, could be explored. The benefits of group coaching are that it elicits more accountability because there is increased obligation to achieve if other people are witness to clients' committing to goals (Armstrong et al., 2013). A group environment may make clients feel validated, motivate clients and facilitate a space for learning; and reduce feelings of loneliness as they go through the health issue (Armstrong et al., 2013). The current study did illustrate the importance of the coaching relationship for participants; how factors of this relationship, such as dialogue, allowed clients to share experiences and feel understood and validated. Thus, further studies could explore a HWC group intervention and how a group environment, where clients form relationships with other people (and not just the coach), might impact health behaviour change in stroke and cardiovascular disease prevention.

Peer coaching is also a potential area to explore in future studies. Peer coaching is generally implemented by a person who is volunteering to do coaching, and is facing similar issues (Thom et al., 2013). Peer coaching is shown to be significantly effective in diabetes self-management (Thom et al., 2013). Therefore, peer coaching could be explored for stroke and cardiovascular prevention in a NZ multi-ethnic population; and how engaging with a peer, who has faced similar issues to the client (as opposed to a coach who may not have the same kinds of experiences of the issue; Thom et al., 2013), could impact health behaviour change in this population. Furthermore, future studies could potentially compare individual coaching with peer coaching and group coaching, to assess how they compare in terms of the efficacy for changing health behaviours.

3.12 Conclusion

The current study examined the experiences of HWC in an ethnically diverse group to reduce risk of stroke and cardiovascular disease. The current study found that ethnicity did not have a direct influence health and wellbeing. However, cultural beliefs seemed

to have indirect influences on health and wellbeing; and these cultural beliefs were included and addressed in HWC. HWC was implemented by coaches that had cultural competency training. This could have been the reason why clients' felt that their cultural needs were being met in the coaching intervention. Therefore, the current study provided support for the use of a culturally safe HWC intervention when working with an ethnically diverse cohort in NZ, for reducing stroke and cardiovascular disease risk.

It was illustrated that the relationship with the coach was an important aspect of HWC. Participants identified three aspects of the coaching relationship that they felt was important: the dialogue with the coach, the role the coach played in the relationship and the space created by the coach. Meaning-making and sharing experiences seemed to have made the dialogue with the coach salient in the relationship. The coach was supportive and encouraging, and acted as a guide, allowing clients to develop insight and understand how to deal with the health issue. The coach seemed to have created a safe space by utilizing effective person-centered strategies such as empathy, active listening and genuineness, which has paved way to creating a trusting relationship between the coach and the client. Therefore, the current study examined the relationship with the coach in depth, which potentially contributes to better understanding of the coaching relationship and how it is useful in the process of health behaviour change.

Another finding of the current study is the participants' awareness of health. Participants reported already having existing knowledge and awareness around health but needing support to look after their health. They also reported learning through HWC about health and wellbeing; this demonstrated that learning about health and wellbeing, alongside increasing motivation and developing behaviour skills, could be effective in creating health behaviour change. Participants also understood the consequences of not looking after their health. It seemed that the understanding participants had about the consequences of not looking after health was quite general, and not specifically to do with stroke and cardiovascular disease prevention. As there is a moderate level of knowledge of stroke in NZ and even a previous experience with stroke does not guarantee more awareness of stroke, there is a need for more thorough research into the level of awareness and knowledge prior to HWC and how this might change after HWC.

The importance of the person-centered nature of HWC was also found. Exploring client values to help them view health in a more holistic manner and ensuring that the

intervention is tailored to the client's needs seems to be an important aspect of changing health behaviours. Furthermore, addressing the client's personal issues was also essential in HWC; this seemed to be intuitive as more self-insight into health behaviours could have led to dealing with issues that are relevant to the health behaviours. Exploring their personal issues has allowed participants to work on issues that is a priority for them. This, in turn, could have led to overcoming life stressors, to better coping and increased self-confidence, as part of the process of health behaviour change. The current study illustrated that practical strategies, such as goal setting and keeping a diary, was useful in HWC. This illustrated that educating clients within a collaborative relationship was useful. This finding also reinforced the importance of assessing the participants' readiness to change and utilizing strategies accordingly. This was important to ensure that clients are comfortable with what they engage in and in ensuring that the coaching occurs according to the clients' agenda.

The findings from this research may contribute to existing literature by illustrating how a person-centered HWC intervention, and the relationship between the coach and the client, are essential and relevant within a multi-ethnic NZ population for health behaviour change in stroke and cardiovascular disease prevention. Furthermore, the current study also demonstrated that meeting cultural needs is a key component of HWC and in changing health behaviours, which is an essential contribution to the literature. In terms of future research, group coaching and peer coaching can be explored for stroke and cardiovascular disease prevention in a multi-ethnic NZ population.

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Appendices

Appendix A: Letter of Ethics Approval Health and Disability Ethics Committee (HDEC)

Health and Disability Ethics Committees

Health and Disability Ethics Committees
Ministry of Health
Freyberg Building
20 Aitken Street
PO Box 5013
Wellington
6011

0800 4 ETHICS
hdecs@moh.govt.nz

16 May 2016

Prof Valery Feigin
AA254
90 Akoranaga Drive
Northcote
Auckland 0627

Dear Professor Feigin

Re:	Ethics ref:	16/NTA/36
	Study title:	Efficacy of a Health and Wellness Coaching program for the primary prevention of stroke and Cardiovascular disease in the community

I am pleased to advise that this application has been _approved_ by the Northern A Health and Disability Ethics Committee. This decision was made through the HDEC-Full Review pathway.

Conditions of HDEC approval

HDEC approval for this study is subject to the following conditions being met prior to the commencement of the study in New Zealand. It is your responsibility, and that of the study's sponsor, to ensure that these conditions are met. No further review by the Northern A Health and Disability Ethics Committee is required.

Standard conditions:

1. Before the study commences at _any_ locality in New Zealand, all relevant regulatory approvals must be obtained.

2. Before the study commences at _any_ locality in New Zealand, it must be registered in a clinical trials registry. This should be a WHO-approved (such as the Australia New Zealand Clinical Trials Registry, www.anzctr.org.au). However https://clinicaltrials.gov/ is acceptable provided registration occurs prior to the study commencing at _any_ locality in New Zealand.

3. Before the study commences at _a given_ locality in New Zealand, it must be authorised by that locality in Online Forms. Locality authorisation confirms that the locality is suitable for the safe and effective conduct of the study, and that local research governance issues have been addressed.

Non-standard conditions:

— Please clarify further in the Participant Information Sheet that participants' medical information will be obtained from Nirvana with participant permission and the reasons why it is important for the study.

— The Consent form asks participants to give approval but no clarification of what or why in the Participant Information Sheet (or the telephone script). Please correct this.

Non-standard conditions must be completed before commencing your study. Non-standard conditions do not need to be submitted to or reviewed by HDEC before commencing your study.

If you would like an acknowledgement of completion of your non-standard conditions letter you may submit a post approval form amendment. Please clearly identify in the amendment that the changes relate to non-standard conditions and ensure that supporting documents (if requested) are tracked/highlighted with changes.

For information on non-standard conditions please see section 128 and 129 of the Standard Operating Procedures at http://ethics.health.govt.nz/home.

After HDEC review

Please refer to the *Standard Operating Procedures for Health and Disability Ethics Committees* (available on www.ethics.health.govt.nz) for HDEC requirements relating to amendments and other post-approval processes.

Your **next progress report** is due by **15 May 2017.**

Participant access to ACC

The Northern A Health and Disability Ethics Committee is satisfied that your study is not a clinical trial that is to be conducted principally for the benefit of the manufacturer or distributor of the medicine or item being trialled. Participants injured as a result of treatment received as part of your study may therefore be eligible for publicly-funded compensation through the Accident Compensation Corporation (ACC).

-
Please don't hesitate to contact the HDEC secretariat for further information. We wish you all the best for your study.

Yours sincerely,

Dr Brian Fergus
Chairperson
Northern A Health and Disability Ethics Committee

Appendix B: Letter of Ethics Approval AUT University Ethics Committee (AUTEC)

10 May 2016

Rita Krishnamurthi
Faculty of Health and Environmental Sciences
Dear Rita

Ethics Application: 16/174 Primary Prevention of Stroke and Cardiovascular Disease in the Community.

Thank you for submitting your application for ethical review. I am pleased to advise that a subcommittee of the Auckland University of Technology Ethics Committee (AUTEC) approved your ethics application subject to the following conditions:

1.   Provision of the final full approval letter from Northern A;

2.   Provision of the application form as seen by HDEC;

3.   Provision of all questionnaires and instruments that will be administered to participants;

4.   Amendment of the Information Sheet as follows:

   a.   Provision of an indicative date for withdrawal, rather than "at any time";

   b.   Inclusion of a footer which indicates version number.

Please provide me with a response to the points raised in these conditions, indicating either how you have satisfied these points or proposing an alternative approach. AUTEC also requires copies of any altered documents, such as Information Sheets, surveys etc. You are not required to resubmit the application form again. Any changes to responses in the form required by the committee in their conditions may be included in a supporting memorandum.

Please note that the Committee is always willing to discuss with applicants the points that have been made. There may be information that has not been made available to the Committee, or aspects of the research may not have been fully understood.

Once your response is received and confirmed as satisfying the Committee's points, you will be notified of the full approval of your ethics application. Full approval is not effective until all the conditions have been met. Data collection may not commence until full approval has been confirmed. If these conditions are not met within six months, your application may be closed and a new application will be required if you wish to continue with this research.

To enable us to provide you with efficient service, we ask that you use the application number and study title in all correspondence with us. If you have any enquiries about this application, or anything else, please do contact us at ethics@aut.ac.nz.

I look forward to hearing from you,

Yours sincerely

Kate O'Connor
Executive Secretary
Auckland University of Technology Ethics Committee

Cc: Susan Mahon

Appendix C: Interview Guide

Qualitative feedback from PREVENTS participants/coaches

Participant ID	Date of Interview
Group:	
Time of interview	Interviewer Initials
Consent form signed YES/NO	Date of signature

Interview with study participants

HWC Group

1. What initially interested you about the study? [text]
   a. How did you decide whether to take part or not? [text]
   b. Before this study, were you aware of your risk of stroke? If no, has this changed? How?
   c. Is reducing your stroke/cardiovascular event risk important to you?

2. How did you find taking part in the study? [text]
   a. Was there any aspect of the study that you particularly liked or found beneficial? [text]
   b. Was there anything about the study that you found difficult or frustrating? [text]

3. How did you find the HW coaching in this study? [text] Do you feel it helped you personally? If so how?
4. Are there any particular aspects you particularly liked, and/or feel could have been better? (e.g. the health information booklet given at the beginning, - was it useful?

5. Would you like to see HWC as part of regular medical practice? Reasons?
6. Did you find the coaching model, appropriate within your own culture/world view and if so How and if not why?

ALL

7. Is there anything else you would like to add? [text]

Appendix D: Participant Information Sheet

Participant Information Sheet

Date Information Sheet Produced:

16/03/2018

Project Title

Experiences of Health Wellness Coaching

An Invitation

My name is Susan Mahon and I am the Study Manager for the Health and Wellness Coaching Study (PREVENTS) at Auckland University of Technology (AUT). You are invited to participate in this qualitative study. We seek to understand your experiences of being part of the coaching group. We wish to focus on your personal experiences of the coaching. This is an opportunity for you to share your experience of what it was like to be involved in this role.

Your participation is completely voluntary and you may withdraw at any time, up until the point where you have read the transcript of your interview, without any adverse consequences

What is the purpose of this research?

The purpose of this research is to gain some in-depth knowledge into your experience of taking part in Health Wellness Coaching Study.

How was I identified and why am I being invited to participate in this research?

You have been identified as you are currently participating in the PREVENTS study

How do I agree to participate in this research?

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

What will happen in this research?

Participation in the study involves taking part in a face-to-face interview which will be audio recorded and/or video recorded. In the interview, you will be encouraged to share your stories regarding your experiences of receiving Health and Wellness Coaching intervention. This will take place at your home, or location of your choice. The interview will be approximately 30 minutes in duration. You may also be asked if you would like be filmed for part of the session. The video recording is not compulsory, and you can still take part in the interviews without being filmed. The video footage will provide meaningful information about your personal journey and experiences of the coaching and we would like to use this information for presentations at conferences, peer supervision and the NISAN website.

After transcription of the recordings, if you wish we will supply you with a copy of your interview. At this stage you will have the opportunity to amend or remove any information from your interview transcript. If you have taken part in the video recordings you have the choice to view the footage and delete parts you do not wish to be user for wider viewing.

What are the discomforts and risks?

I acknowledge that this may be a sensitive and personal topic. Talking about your experiences may trigger some emotions and psychological discomfort. You will be reminded that you do not have to answer any questions that will cause you discomfort.

How will these discomforts and risks be alleviated?

You can pause or stop the interview at any time; you will be reminded of this during your interview. In addition, you do not have to answer any questions that would cause you extreme discomfort. If you become distressed, the interview will be stopped, and you will be given some time to recover, and asked if you would like to stop or continue with the interview.

What are the benefits?

You may benefit by telling us your story, being heard, and in the process assist our understanding of your unique experiences in the PREVENTS study. Furthermore, this study is an opportunity to advance the field of knowledge as,

there is limited research in this area in NZ. We aim to publish the findings of this study. You will also be able to receive your own copy of the final report.

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How will my privacy be protected?

Video Recordings and Transcripts: To maintain your privacy, you will be identified by a ID Number generated by the computer, for example; P (for PREVENTS) 0001 = P0001, that will be used whenever your interview is referred to in the write up. In addition, no individual details that might identify you as the participant will be revealed in the study.

Although full anonymity cannot be offered because the researcher will be interviewing you, privacy will be assured as only the researcher and those directly involved in the study will have access to the audio recordings. All data, including transcripts, audio and/or video recordings will be kept in a secure, password protected folder on a AUT Server.

Video Recordings: Due to the footage being shown at conferences, NISAN website, and GP Practices, full privacy cannot be given. However, the footage will not be able to be copied in any way, nor used for any other purposes than stated in this information sheet.

What are the costs of participating in this research?

There are no financial costs to participating in the study. Your only cost will be time. It is estimated that the interviews will be approximately 30 minutes long. Koha of $20 will be given as either a countdown voucher or petrol voucher.

What opportunity do I have to consider this invitation?

You can contact me by email smahon@aut.ac.nz to find out further information.

Will I receive feedback on the results of this research?

Yes. At your request I will send you a summary of the study's findings. It may also be published in a scholarly journal which can be accessed electronically.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, *Susan Mahon, smahon@aut.ac.nz. P: 9219999 ex 7438*

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, *ethics@aut.ac.nz* , 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Susan Mahon: smahon@aut.ac.nz

Project Supervisor Contact Details:

smahon@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on *16ᵗʰ March, 2018*. AUTEC Reference number *16/174*

Appendix E: Consent Form

Consent Form

Project title: *Experiences of Health and Wellness Coaching*

Project Supervisor: *Dr Rita Krishnamurthi*

Researcher: *Susan Mahon*

O   I have read and understood the information provided about this research project in the Information Sheet dated 16/03/2018

O   I have had an opportunity to ask questions and to have them answered.

O   I understand that the interview will be audio-taped and transcribed.

O   I understand that the information contained in the audio will be stored in a password protected folder in a secure AUT Server. This material will not be copied.

O   I give my permission to use quotes from the interview as a whole or in part in conference presentations, as educational material for GP Practices, Peer supervision, and /or the website at NISAN.

O   I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.

O   I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.

O   I agree to take part in this research.

O   I wish to receive a summary of the research findings (please tick one): YesO   NoO

Participant's signature: ....

Participant's name: ....

Participant's Contact Details (if appropriate):

....

....

....

....

Date:

Appendix F: Examples of Coding

```
53   P0100: No
54   R: Has this kind of changed after the study?
55   P0100: Oh yeah, yeah. It did change. I mean, it made me more aware and more focused
56   and more concerned about my health.
57   R: Yeah
58   P0100: So, yep.
59   R: So, is - you might have answered this already, but, is reducing your
60   stroke/cardiovascular event risk important to you?
61   P0100: Oh, definitely. I mean, I want to live long (Laughs).
62   R: Of course
63   P0100: I have children. I wanna see my grandchildren. I wanna see, you know.
64   R: Yeah
65   P0100: Yeah.
66   R: Yeah, of course. Um, how did you find taking part in this study?
67   P0100: Hey, look, I'll tell you what, it was a huge commitment, especially time.
68   R: Yep
69   P0100: I mean, being a deputy principal of a school, especially at the largest school in
70   New Zealand is not a easy task. I mean, I work on every 70 to 75 hours a week.
71   R: Yeah, wow.
72   P0100: So...
73   R: Yeah
74   P0100: I mean people don't really know that but yeah, on average, because I mean, if
75   you look at the amount of reading I gotta do, the amount of uhh, you know, analysis of
76   data and student achievement and stuff like that. So it's a lot of work. But I felt it was
77   something that I needed to do.
78   R: Yep
79   P0100: And I needed to make the time. So time was the issue.
80   R: Time was the issue, yep.
81   P0100: But the beauty of the program was I found that the facilitator that was working
82   with me was very flexible.
83   R: Right
84   P0100: And so, it was very understanding in terms of, say, I say to her sorry I can't make
85   this meeting, could we reschedule. I think that was good part about it.
86   R: Okay
87   P0100: Although they had a timeframe within which she had to do it. But I think that was
88   the biggest - other than that, uh, I - I found the program very beneficial.
89   R: Okay
90   P0100: Because it made me set goals and look at goals. And I almost achieved it. I
91   mean-
92   R: Yeah, yeah.
93   P0100: So yep.
94   R: So it sounds like, um, you had issues with the - like timing was a bit of an issue but
95   the fact that the coach was quite flexible really helped you.
96   P0100: Yeah, yeah.
97   R: Yeah, yeah.
98   P0100: So, yeah, yeah, that - that was quite useful. And I think that's how you need to -
99   to tailor the program.
100  R: Yeah, yeah.
```

Hafsa Iqbal
Becoming health conscious. Line 55-56. – becoming health conscious because of the study (as opposed to Int 1, which was a precursor before the study – could still be the case here but HWC seemed to have increased this for the client)

Hafsa Iqbal
Consequences of not looking after health. Related to being here for other people/family. Line 61 and 63.

Hafsa Iqbal
Related to life principle.

Hafsa Iqbal
Meeting client needs. Coach was flexible and understanding which fit well with the client's needs. Similar to Int 2 and meeting the need to talk. Under/related to role of the coach – traits of the coach or what they did – code need to be renamed?

Hafsa Iqbal
Meeting client needs.

Hafsa Iqbal
Practical strategies that were helpful.

Hafsa Iqbal
Tailoring the coaching to client

153 R: And how - how was that helpful for you?
154 P0325: Well (clears throat) I thought, um, some things I thought was a waste of time.
155 Then, you know, when they say, you know, this you do this it helps and then, you go
156 back and - oh, maybe it's not a waste of time (Laughs). But (.) do it a different way, you
157 know?
158 R: Right.
159 P0325: Different - different way. And think about it differently.
160 R: Okay, yep.
161 P0325: 'Cause I hope - I used to think, oh, what a waste of time. And then, oh, okay,
162 that's not a waste of time (Laughs).
163 R: Yeah, so it sounds like, um, when she told you, um, she kind of changed your
164 perspective a little bit. You started to kind of think that this is not a waste of time and
165 how did that help to kind of_?
166 P0325: It just helps me change my ways
167 R: Okay.
168 P0325: You know? Me(?) change my - my, um, sort of - 'cause sometimes you stick to
169 one thing that you think you know that's right.
170 R: Yeah
171 P0325: But then, until people come along and say things, not in - um, what do you call
172 it? Not, um, uh - how do you say it? - Um, imposing it on you, like, you know? All
173 forceful.
174 R: Yep
175 P0325: But just knowing that it's only a study, that it's, um, - uh - what do you call it? -
176 maybe ideas or - or looking at it differently and - 'cause they ask you how do you do the -
177 you say and then, okay, well, why - you know? - do it this way? But you doing the same
178 thing.
179 R: Yep.
180 P0325: (Laughs).
181 R: So you are doing the same thing but slightly differently - is that what you mean - like -
182 ?
183 P0325: Um, yeah. And - and - and - to - and with the attitude. With a different attitude.
184 R: Okay.
185 P0325: You know?
186 R: So it's helped you change your attitude? Is that what you mean?
187 P0325: Mhhm.
188 R: Yeah, okay.
189 P0325: Well it has to be a good attitude. Otherwise, if you don't, you know, have the
190 right attitude, sorts of time(?), (.) you know? You got to want to do it.
191 R: Yes, of course, yep. Okay. It's really cool that you found it, um, beneficial.
192 P0325: Yes.
193 R: That change - changein perspective.
194 P0325: Yes, yeah.
195 R: And kind of helped you with your own attitude towards things.
196 P0325: Mm-hmm.
197 R: Yeah. Awesome. Um, are there any particular aspects that you liked or feel could
198 have been better in the health and wellness coaching?
199 P0325: No because everything was covered and it was ample opportunity to ask
200 questions or and ask for any ideas or help in any areas.
201 R: Right, yep.
202 P0325: There was always that opportunity for questions and you know, and - and
203 available, you know, and things are available. (.) No it was always opportunity to ask -
204 R: Okay

Hafsa Iqbal
A change in perspective due to HWC – which has increased motivation/given rationale to engage in a behavior (Line 154-157; 159-166) and potentially changed attitudes towards th behavior a change (Line 183)? – check the last attitude change comment.

Hafsa Iqbal
Participant's willingness to participate – in this case it seems like client is referring to participant's willingness to participate in the health behaviours. Line 189-190. Related to Int 2?

Appendix G: Example of Finding Themes

Thematic Analysis: Themes (Braun & Clarke, 2002).

Phase 3: Searching for themes

Awareness of health? Differing aspects of it.
Being health conscious – can this be split.
- Being health conscious – related to health being important. Potential motivation for being involved with study. Sort of a precursor for their experiences of the intervention? Int 1
- Becoming health conscious. Line 55-56. – becoming health conscious because of the study (as opposed to Int 1, which was a precursor before the study – could still be the case here but HWC seemed to have increased this for the client). Int 3 Learning from the HWC? (under this theme?)
- Being health conscious: does this code fit here? Description of why looking after your health is important. Perhaps a separate code? Line 357-359; Line 362. Int 7.
- Being health conscious: looking after health seems very important to client – this includes prevention and doing health checks. Line 18; 20-21; 23-24. This is something client also tries to encourage sisters to do (Line 30). Awareness around diabetes risk – motivated by family history (Line 35-36; Line 40-41). Maybe related to above point (Needing support). HWC was part of getting on track in terms of physical health for client – Line 45-49. Int 8
- Being health conscious: client comparing self to other people's perspective of health – seems to be around people who are not as conscious about health. Rationale for prevention – not leaving room to blame self if unhealthy. Line 88-89; 91-92; 94; Line 96-97. Int 8
- Being health conscious: prevention seems to be very important for the client. Line 381-384; Line 386-387; Line 391-392. Looking after yourself and keeping healthy – underlying motivation that makes client want to engage more in health behaviours. This may have also encouraged client to engage in HWC? – this last point might be linked to Line 3-4 comment in this interview. Int 8
- NOTE: This code be very much related to becoming aware of health status and needing support.
1. Becoming aware of health status: depends on stage of life – client feels her age group is becoming more aware of health and wanting to look after health. This gives a motivation to look after health. Becoming health conscious (Part of this code or related?) whereas people younger might not feel this way. Line 416-419; 424-428. Int 8.
- Becoming aware of health status: again linked with stage of life/age – becoming aware of changes in health and body and this provides motivation to want to look after health. Line 443; 445-446; 448-449. Client feels this is the case regardless of what culture the person is (Line 448) – related to code perspective of culture and health and wellbeing – ethnicity/culture has less influence in terms of motivation for change. Int 8.
Knowing the consequences of not looking after health.
- Knowing the consequences of not looking after health. Related to being health conscious?
   - 178-179; 181-182; 186

- Awareness around this.
- The role individual plays in their own health.
- Consequences of not looking after health. The fear around an adverse report coming out. Line 222; Line 225-226; line 230-232. Int 1.
- Consequences of not looking after health – this time in relation to other people as opposed to the self. Being there for close others. Line 91.
   - Awareness around other deaths in the family and how it is affecting his child. Therefore, reflecting on how if he wasn't here, this would affect his child. Consequences of not looking after health in relation to death and loss. Line 93-95; Line 97-98.
   - Intertwined = rationale for being here is family/kids – consequences of not looking after health very much related to other people. Int 2.
- Consequences of not looking after health. Related to being here for other people/family. Line 61 and 63. Int 3.
- Consequences of not looking after health – part of why being healthy is important, that you wouldn't need to use medicines. Line 366-367. Relate to Int 1. Int 7 Have used this quote already, don't include.

The presence of awareness and knowledge.
- Line 154-155: a sense of right and wrong. The presence of awareness and knowledge. The knowledge is already there but help is needed – might be something that comes up in other interviews too?
   - Line 162: Inspiration from the coach. Although knowledge is present, support is needed.
   - Related point: Did not agree or disagree regarding putting intervention as a medical practice. This thought participant felt he didn't need it so much (despite it being a support/inspiration in certain times) but feels it can be useful for those who did not care about health (Line 266). Could be related being aware of health already. Int 1.
- Benefits of gardening described again. This is related to how the participant received that support – something he needed on top of the knowledge/awareness he already had about health. Line 193-198. Int 1
- Awareness of knowledge – briefly mentioned with other interviews (Int 1 especially) around health. But here, awareness of knowledge in a different way – the coaching reiterated what participant knows about her values (rather than about health itself). Line 95-95; Line 98-99; Line 103. Code renamed to reinforcing existing knowledge? Int 4.
- Could be related to awareness of knowledge – this code/theme is coming out here in a different way. The awareness that participant certain critical values but fitting them into everyday practices eg. boundary setting, is something she needed help with. Line 121-122.
   - Again relating to previous comment: Line 133-135. Client knew she needed to set boundaries just didn't know how it looks like and how she can do it. Coach as a support here.
   - More here on being sure of values: Line 153-154; 163-164 – not sure if relevant to any codes/themes.