Health challenges of some urban Cook Island women in New Zealand

*Abstract: Cook Island women (CIW) in New Zealand are disproportionately represented among almost all of the negative health statistics. They predominately occupy the lowest socio-economic level, present with high rates of heart disease risk, cervical cancer and smoking. Furthermore, they delay seeking treatment until their diseases are at an advanced stage. The primary aim of this study was to identify the health challenges that some CIW in New Zealand regarded as salient. We were also interested in the cognitive representations generated by health challenges, such as the cause, the consequences, the timeline, and the degree of control they felt they had. The types of coping strategies employed in response to health challenges were also explored, as was the participant's appraisal of the effectiveness of their efforts. Answers to semi-structured interviews were categorised using QSR NUD*IST Release Version 4.0. The results indicate that women are most concerned about their diet, exercise, obesity and diabetes. Their answers demonstrated that they: often feel overwhelmed by health challenges; believe that they have little control over the cause of these challenges; and that they have a tendency to minimise their consequences. Furthermore, the women were more likely to engage in emotion-focused coping, and appraise their problem-focused coping strategies negatively.* *(Pacific Health Dialog, 2003, 10 (2); pg 16-26)*

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Introduction

Cook Island women (CIW) in New Zealand feature poorly on a wide range of health indices. They are predominantly of low socio-economic status, live in overcrowded environments, smoke heavily, and have high rates of obesity, non-insulin dependent diabetes, cardiovascular disease and cancer (New Zealand Public Health Commission, 1994; Bathgate, et al., 1994; Schaaf, et al., 2000; Statistics New Zealand, 1998). However, the health service initiatives have done little to ameliorate their disadvantage. The authors posit that health interventions that target the health challenges that this group regards as salient may prove to be more effective.

This paper is based on semi-structured interviews undertaken in 1999 with CIW resident in Manukau City. The aim was to identify the health challenges that this group of women had experienced or were most worried about. For the purposes of this research, health challenges are defined as internal symptoms or external events that impact on a person's health. We were also interested in how the women made sense of the health challenges they nominated. For example, what had caused the health challenge, what did they think the consequences might be, how much control did they feel they had, and how long did the health challenge last. The paper also examined the coping strategies they employed to manage the health challenges. For instance, did they utilise emotion-focused or problem-focused coping strategies? Finally, the paper will address how the women had appraised the effectiveness of their coping strategies. Did they feel that they were managing their health challenges effectively, or, did they feel that there was little that they could do?

Background

According to traditional Cook Island conceptions, health is expressed in the term "ora'anga" (Laing & Miteara, 1992). This refers to all things that affect a person's life. According to the authors, those who are familiar with this conception can specify which part of their "ora'anga" is being referred to if required. For example, "ora'anga vaerua" (the spirit), "ora'anga o te ngutuare" (the household).

The extended family provides childcare, home help for new mothers and guidance for all children in that family. In times of grief and crisis it supports the immediate family with money, food donations, and labour. It also ensures care and respect is given to its elders (Tukuitonga & Finau, 1997). However, the dynamics and the health of the extended family are constantly evolving with urbanisation.

CIW and other Pacific women living in New Zealand have undergone rapid urbanisation. Consequently, their health patterns reflect similar trends to those of the general Caucasian (Palangi) population. For instance,

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they are more likely to die from heart disease followed closely by cancer (New Zealand Public Health Commission, 1994). However, diseases of poverty such as Rheumatic Fever and Tuberculosis are also more prevalent among Pacificans (Neutze, 1988; Stehr-Green, 1992). Furthermore, Pacific children have been found to have the highest risk for contracting pneumonia (Grant et al., 1998) and meningococcal disease due to overcrowded living conditions and exposure to passive smoking (Baker, et al., 2000).

Demography - There were 52, 227 Cook Islanders living in New Zealand according to the 2001 Census. Cook Islanders represent twenty-three percent of the totals of Pacificans resident in New Zealand. In 2001, forty-two percent of this population were less than fifteen years of age. Seventy percent of Cook Island people resident in New Zealand at the time of the 2001 Census were born here (Statistics New Zealand, 2002).

Thirty-six percent of Cook Islanders living in a family were in a one-parent family. CIW will head the vast majority of these families. Cook Islanders are still more likely to live in an extended family situation than other New Zealanders. Most Cook Islanders live in one-family households, i.e. seventy-six percent. However, nineteen percent of Cook Island families were sharing a house with other families or individuals, compared with only five percent of the general New Zealand population (Statistics New Zealand, 2002).

Education - Younger Cook Islanders are more likely to have formal qualifications than their elders. In 2001, twenty-one percent of Cook Islanders aged from twenty to twenty-four held a post-school qualification. The percentage declined steadily with age to nine percent of those aged sixty-five and over (Statistics New Zealand, 2002). In 1996, tertiary qualifications were highest amongst the 20-34 year age group. The percentage with no qualifications was highest (88%) among those aged 55 years and over (Statistics New Zealand, 1998). According to 1996 Census data, 180 CIW (1.3%) had obtained a Bachelor degree, or *its* equivalent, and a further 39 (.03%) had obtained a postgraduate degree (Statistics New Zealand, 1998).

Employment - The most common occupation for CIW in the 1996 Census was clerical worker. Only 5% of New Zealand born CIW categorised themselves as legislators, administrators, or managers. A further 7% categorised themselves as professionals (Statistics New Zealand, 1998). The women within these two groups are the most likely to participate in special interest groups, and act as representatives during the decision making process regarding the health needs of their community.

However, having gained entry to decision making bodies, CIW women may still be ineffective because:

i. There are so few of them, so their opinions can easily be discounted;
ii. Cultural norms restrict their ability to take an argumentative stance, especially in relation to men;
iii. They have adopted the values and beliefs of the mainstream culture;
iv. The majority of people who are able to gain access to such bodies are from the elite class, i.e. members of prominent families (Hau'ofa, 1994).

Health Care Utilisation - One of the major thrusts of the women's health movement has been their dissatisfaction with existing health services (Redman, et al., 1988). Furthermore, the number of primary care practitioners is generally lower in areas with high Pacific and Maori populations (Malcolm, 1996). Women in such areas would therefore be forced to travel further for their health services, and compete with more people to gain access – resulting in longer waiting times.

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Hospital admissions data for CIW are obscured by recording methods that assimilate all Pacificans into one category. According to the Ministry of Health (MOH, 1995) public hospital admissions for Pacific women predominantly centre on the reproductive process. The main admission categories were diseases of the respiratory system (8%), external causes of injury and poisoning (5.3%), and diseases of the genito-urinary system (4.8%).

Socio-economic Status - Pacificans are over-represented amongst the most disadvantaged and lower socio-economic groups. Diseases of poverty such as Rheumatic Fever and Tuberculosis attest to the third-world living standard they experience (Tukuitonga & Finau, 1997).

Socio-economic stratification may itself be a social force that creates negative health consequences for those in the lower strata (Lantz, et al., 1998). Socio-economic inequalities in societies order the life experiences of people, causing advantages and disadvantages to cluster cross-sectionally and accumulate longitudinally (Blane, 1995). In a review of thirty studies on this subject, Antonovsky (1967) demonstrated the consistency of this finding since the twelfth century.

Obesity - Obesity is the major cause of morbidity among adult Pacificans (Tukuitonga & Finau, 1997). In a sample of Rarotongan and Mangaian women, obesity was the largest identified risk factor for hypertension (Katoh, et al., 1990). Metcalf and colleagues found that Body Mass Index (BMI) was significantly higher among Pacificans than Europeans in New Zealand (Metcalf, et al., 2000). The BMI increased with increasing perception of body size by gender and ethnic groups.

Researchers have long believed that a hereditary trait is responsible for Pacific women's high rate of obesity. The thrifty gene hypothesis posits that a genotype enables fat to be stored when food is abundant in societies that experience recurrent prolonged shortages (Neel, 1962). However, recent research (Swinburn et al., 1991; Valdez et al., 1994) has shown that there was more body fat among Europeans than Polynesians of equal weight. Others have posited that excessive food intake assaulting the individual will over time overwhelm the metabolic pathways, thus leading to diseases like NIDDM (Finau, et al., 1982).

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Obesity has reached epidemic proportions as Pacificans adopt the western lifestyle (Dowse, et al., 1992; Tukuitonga & Finau, 1997). Research conducted on Rarotonga found that women had thicker mean-skin folds at triceps and sub- scapular sites than women who lived on the much less westernised island of Mangaia (Katoh et al., 1990).

Recent research into obesity among Pacific women points to an interaction between genetic, socio-cultural factors, and environmental variables (Rush, 1999; Rush, et al., 1997). Evidence of differences in carbohydrate and fat metabolism, and resting total energy expenditure was found between Palangi and Polynesian women (Rush, 1999). This suggests that an interactive relationships between genetic variables, ethnic background, and environmental variables.

Diet - Metcalf, et al. (1998) found that middle-aged Pacificans consumed less carbohydrate, fibre and calcium, and more protein, fat, saturated fat and cholesterol than Palangi. Furthermore, the Pacificans surveyed ate fewer servings of cereal, fruit, cheese, and milk per month compared to the Palangi, and ate more servings of red meat, chicken, fish and eggs.

Dietary patterns of Pacificans seem to be influenced by their place of residence, and whether one parent is of non-Pacific origin (Tukuitonga & Finau, 1997). Pacific children seem to have developed preferences for western foods that are high in saturated fats, sugar and salt. A survey of Samoan children in New Zealand found that foods that were accessible, familiar, and cheap were consumed most frequently, e.g. lollies, chips, and takeaways (Fuamatu, 1997).

Alcohol - Traditional Cook Island drinking practices excluded women. Women who drank were seen as having 'loose morals' (ALAC, 1997). However, the first generation of Cook Island girls to be raised in New Zealand have made alcohol a part of their social life. Girls are introduced to alcohol through their family, friends, and the media as not only acceptable - but expected (Norris, 1988). Pacific girls tend to drink less more than once or twice a week, but they have a tendency to binge drink when they do (Tukuitonga & Finau, 1997).

Focus groups for the Alcohol Advisory Council (ALAC) found that some Pacific women were prevented from seeking treatment by the social stigma attached to drinking (Gray & Norton, 1998). The authors posit that such attitudes generate fears of isolation and unwarranted discrimination.

Smoking - The 1996 Census showed that 35.5% of CIW smoke regularly, slightly lower than the rate for New Zealand Maori women (38.9%), and much higher than the rate for New Zealand European women (20.4%). Exposure to maternal smoking has a significant impact on the respiratory health of children. Furthermore, maternal smoking has been found to be more influential than paternal smoking on children's initiation of the habit (Jackson, et al., 1998).

Non-Insulin Dependent Diabetes Mellitus (NIDDM) - Cook Island women appear to have a higher prevalence of NIDDM than men. Weinstein, et al. (1981) showed that on the northern Cook Island atoll of Manihiki, diagnosed NIDDM among 10.3% of women and 8% of men. About 31% of the women surveyed had impaired glucose tolerance, compared to only 8% of men. According to Brewis (1996), gender differences such as this may be attributable to key behavioural differences in the lifestyles of men and women. For example, women are more likely to engage in repetitive domestic tasks that do little to improve the physical condition of their body, e.g. care giving, cooking and cleaning. However, Simmons, et al. (1994) found that Pacificans with NIDDM have the poorest knowledge about the condition and are least likely to be receiving optimum treatment.

Cardiovascular Disease (CVD) - In New Zealand, CVD is currently the leading cause of death for Pacificans with mortality rates higher than the national average for

New Zealand (Bell, et al., 1996; Tukuitonga, et al., 1990). Bell et al. (1996) found that although rates of CVD are decreasing among Palangi, they are increasing among Pacificans and Maori.

There have also been clear increases in the rates of CVD among Pacificans who have undergone significant acculturation (Zimmet, 1979; Zimmet, et al., 1990). For example, the CVD mortality of ethnic Hawaiians, who have generally undergone significant acculturation, exceeds the overall mortality rate (Curb, et al., 1991). In New Zealand, Schaaf, et al. (2000) found that Cook Island and Samoan women had significantly higher ten-year CVD risk than Niuean and Tongan women, due primarily to elevated total cholesterol levels. Li, et al. (1994) showed that three CVD risk factors (smoking, cholesterol and systolic blood pressure) explained 90% of the inter-population variance of the CVD prevalence in the Pacific women sampled.

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It is interesting to note that although the reported morbidity from CVD is lower among Pacificans living in New Zealand than Caucasians, their mortality rate is higher (Bell et al., 1996; Tukuitonga et al., 1990). However, according to Tukuitonga and Finau (1997) the difference is more likely to reflect poor access to health information and services, rather than an inherently severe disease among Pacificans. For example, although the prevalence of hypertension is higher in Pacificans compared with other New Zealanders, they are less likely to receive treatment (Bullen, et al., 1996). An analysis of Coronary Artery Bypass Grafts and Coronary Angioplasty operation rates in Auckland showed that Pacific people had the lowest intervention rates of all groups (Tantrum, et al., 1995, Tukuitonga & Finau, 1997).

Cancer - Between 1987 and 1991 cancer was the leading cause of death for Pacific adults (New Zealand Public Health Commission, 1994). The leading sites for cancer in Pacific women were breast and cervical. Cervical cancer was the leading site of cancer among Pacific women, compared with breast cancer among women in the rest of the population (Tukuitonga, et al., 1993).

Pacific women appear to have lower incidence rates of breast cancer (Lawes, et al., 1999). However, they present more frequently with large tumours and metastasis (Newman, et al., 1992). The high rates of pathology can probably be attributed to Pacific women not accessing screening tests and delaying presentation to primary health care practitioners.

Mental Health - Reliable community based information on the prevalence of mental health problems for Pacificans are not currently available. One study showed that Pacificans were under-represented in total psychiatric admissions but were over-represented in committed patients (Dawson, 1987) This finding has been supported by an analysis of institutional mental health statistics showing that 25% of first admissions of Pacificans were through law enforcement agencies compared with 9% among Palangi (Bridgeman, 1993). The most common reasons for first admissions to mental health institutions for Pacific women were affective psychoses, paranoid states and other psychoses.

Cook Islanders living in Auckland were found to have twice the first admission rate for mental illness as Samoans or Tongans, with depression being particularly common. A comparative study in the Cook Islands found the mental health of the people to be unusually good, with prevalence rates of mental illness well below global standards (Murphy, 1978). A small-scale survey of Cook Islanders resident in New Zealand showed that the frequency of external situational stressors and the strength of Type A psychological attributes accounted for 25% of the variance in health status (Graves & Graves, 1985).

Methodology

There were seven women interviewed. Semi-structured interviews were conducted in the participant's home. All interviews were conducted by one of the authors (EM). Childcare and refreshments were provided for all of the participants. A relaxed conversational style of interaction was promoted. The interviews were audio taped and took approximately one hour to complete.

Each interview began with a thorough explanation of the purpose of the study, and provided time for the participant to ask any questions. Most participants said they understood the explanation provided and asked relatively few questions regarding further clarification. However, personal experience suggested that some CIW might be reluctant to ask questions. Therefore, great care was taken to ensure that adequate time was allocated before the interview began, and during the previous meetings, to fully explain what would be required of them.

Notes were taken throughout the interview to determine which questions where to be asked, and in what order. This was because in many cases questions were answered before they had been solicited. Furthermore, in some cases the initial explanation of the

project was sufficient to generate a rich descriptive dialogue enabling the interviewer to concentrate on non-verbal prompts, minimising the subsequent transcription workload.

By the fourth interview several health challenges had emerged from the data as salient to all of the participants. Questions were subsequently tailored to incorporate this trend. This seemed to fit very well with later interviews and rich descriptive dialogue ensued

Audiotapes were transcribed and analysed by the co-author (EM) using QSR NUD*IST Release Version 4.0.

Results

The participants (7 women) were a convenient sample of friends and family members of the researcher. Potential participants were approached during celebrations and meetings over a five-month period. Twenty-seven demographic profiles were completed. The inclusion criteria required that participants nominated their principal ethnic affiliation as Cook Island Maori. Participants were excluded if they possessed a tertiary qualification. Ten eligible participants were identified. All of them agreed to participate in the research Interviews were conducted in English language at the participants' homes. Seven interviews were conducted in total due to saturation of data being achieved.

Several of the participants included secondary ethnicities such as Samoan, Maori, Palangi, and Tahitian. The majority of participants were born in the South Auckland area. The ages ranged from 28 to 32 years. All of the participants identified their mothers as being Cook Islanders. Two participants also included Tahitian as a secondary ethnicity for their mothers Three of the fathers were identified as Cook Islanders, one as Samoan, two as Maori, and one as a Palangi

The majority of participants held either full or part-time jobs, particularly those with school-age children. Their jobs were all either low or semi-skilled. All of the participants were the primary caregivers for their children. Two participants had only one child, two had two children, one had five children, one had four and one had three. All of the participants but one had been a teenage mother.

Three of the participants were living with more than ten people residing in a standard three-bedroom home. One participant had recently moved out from her parent's home and was currently living alone with her child. The last three participants lived with their partners in a nuclear family set-up.

Two of the participants were legally married, and three were involved in long-term de facto relationships. One participant was a widow The last was a single parent.

Two of the participants had completed less than two years of secondary education. One left due to pregnancy and the other because at fifteen she was legally able to. Four participants had completed three years of secondary school, with two attaining School Certificate Finally, one woman completed five years of secondary education, and was currently engaged in tertiary education at the time of the interview, but was yet to complete her degree Participants had engaged in a range of post-secondary school training courses that predominantly revolved around the clerical and hospitality industries.

Data Analysis

Sixteen nodes were generated using QSR NUD*IST Release Version 4.0. The first main node was labelled cognitive representations Five other nodes branched off from this They were identity, cause, consequences, timeline, and control. The second main node was coping strategies. Two nodes branched off from this, problem-focused and emotion-focused The third main node was appraisal Four text searches were performed to find the text that contained the four main health challenges nominated, i.e diet, exercise, obesity, and diabetes A fifth text search for 'food' was also performed as many people had used the term instead of diet

Health Challenges

Diet was the most frequently mentioned health challenge next to exercise Women were concerned that they were not able to provide their families, especially children, with an adequate amount of fruits and vegetables due to financial constraints For example

" *It's just so hard to you know put good food on the table, I mean, every day it's a struggle you know, veggies are so expensive and the kids just go crazy when there's fruit in the house. . I turn my back and they've eaten it all... it just doesn't last...*" (30 year old)

Women were also worried that they were endangering their children's health because of their inadequate diet:

"*...I worry about what the kids are eating a lot I think that's why they keep getting sick cause, because they're missing out on stuff you know like fruit and veggies I try to give them something every few days but it's so expensive*" (30 year old).

The amount of fat consumed was also a common concern:

"Oh their diets are just fat, fat, fat, that's why so many of them are obese. I mean you go to a Cook Island function and what do you see fat, fat, fat..." (32 year old).

Exercise, or the lack of, was the second most frequently mentioned health challenge:

"Oh, I see some women and the most exercise they do is just walking to the mailbox..." (28 year old).

Obesity was also a concern for the participants, particularly as they had observed that all of their mothers and older female relatives were obese:

"I think obesity is a big problem for Cook Island women. I mean everyone is fat aren't they? I can only think of two, maybe three, of our cousins who aren't fat, and as for the older generation... forget about it..." (29 year old).

Diabetes was also a concern for several of the women who knew someone with the condition:

"...Diabetes, yeah I worry about it and that's just from being fat and not having enough exercise..." (32 year old).

Contributing Factors

As stated above the participants identified diet, exercise, obesity, and diabetes as the health challenges they have experienced or are most worried about. They predominantly cited external causes as being responsible for the health challenges. For example, financial constraints played a major role in their dietary choices:

"...It's really hard to put a good meal together on our budget..." (28 year old)

Women also cited time as being a major factor in their inability to exercise:

"...You know how it is, you have to juggle work and the kids, there's just no time for yourself..." (30 year old)

Women predominantly believed that obesity was caused by poor diet and lack of exercise:

"...Well that's the thing isn't it, everyone's fat, everyone eats too much and no one works out..." (30 year old)

Several women believed that diabetes was an inherited condition:

"...Yeah I know this family and quite a few of them have it. It must have been passed down in the genes..." (30 year old).

Another woman cited pregnancy as a possible catalyst for diabetes:

"...Diabetes is a gradual thing where women get diabetes while they're carrying, that's when they put on the weight, put on the weight too fast..." (32 year old).

Timeline

The timeline of a health challenge was a difficult concept for many participants to grasp particularly with reference to diet and exercise:

"...I don't really think I've ever had a good diet, you know. I mean when we were little we just ate what was there, you know, and mum sure didn't worry about balancing our diet or anything. So, I guess I've always had a bad diet..." (32 year old).

Most participants however were able to provide answers with respect to obesity and diabetes:

"I guess I put the weight on when I started having kids because it was just like, one after the other, you know, and I never had a chance to lose it before I was pregnant again. I don't know if I'll ever be back to my normal size..." (30 year old).

Consequences

The women tended to play down the consequences of the aforementioned health challenges:

"... The only time I really worry about not eating enough fruit and veggies is when the kids are sick cause it's like the whole house goes down you knows. We all get sick together and I think maybe if they had more of this and that they wouldn't get sick. But, then again it's a virus that causes it isn't it and you can't avoid them can you..." (32 year old).

Control/Cure

Participants tended not to think they had very much control over the health challenges they experienced:

"Well, what can I do? Maybe I shouldn't pay a bill so I can buy better food? I can't do that, can I? Food always comes last, pay the bills first and whatever is left buys the food..." (30 year old).

Observations

On several occasions, remarks made by participants were incongruous with the observed reality of their lives. For example, although one participant stated that she always included several vegetables in her evening meals it was observed that potatoes, in the form of deep fried chips, were the only vegetable regularly present. Furthermore, when other vegetables were present they were generally overcooked so that some nutritional value would have been compromised.

The most obvious unreported health challenge was smoking. Six of the participants were regular smokers yet none of them mentioned it as a health challenge. What was even more disturbing was that all of the children of these women suffered from asthma yet only one made the effort to regularly smoke outside. Furthermore, they would attribute other causes to their children's asthma attacks. For example a woman whose child had particularly severe asthma regularly smoked inside yet cited environmental effects as being responsible for her child's attacks, i.e. pollens and changes in the weather.

***"...Just thinking about it [diet] sometimes... it just makes me feel really tired..."* (32 year old).**

Stress was another health challenge that was obviously experienced but not acknowledged. Most of the women had full-time jobs as well as being the primary caregiver for several children. Several had previously described their partners as 'just another child', because they were also responsible for looking after their needs.

Emotional Experience

Most women reported feeling overwhelmed when faced with health challenges. For example:

"...Just thinking about it [diet] sometimes... it just makes me feel really tired..." (32 year old).

Coping Strategies - Problem-focused

The women had all tried a variety of strategies however few had been successful:

"...Yeah I've tried lots of diets and exercise programs but I can't seem to stick to them..." (29 year old).

Coping Strategies - Emotion-focused

Many of the coping strategies nominated by the participants were designed to counter the negative emotions that were generated by the health challenge. Several stated that they used food to make themselves feel better. For example:

"... Yeah if the kids get on my nerves I'll make myself up something you know, something yummy... that's my time out..." (30 year old).

Friends were also a popular stress reliever:

"... I make myself a cup of coffee and ring one of my friends so I can have a good gossip. It always makes me feel better..." (29 year old).

Appraisal

As far as diet was concerned, most women believed that they were improving. For example:

"...Some days I do manage to put a pretty healthy meal on the table so I guess I am getting better at it..." (30 year old). However, their opinions regarding weight control were much less positive. For example:

"...Yeah like I said I've tried to lose weight lots of times but it never works, it's just something I have to learn to live with..." (28 year old).

Discussion

Diet, exercise, obesity, and diabetes were the health challenges that women in this study regarded as most salient. This is very interesting given the interconnected nature of these conditions; i.e. poor diet and lack of exercise contribute to obesity that in turn contributes to diabetes. Because of the youth of the participants, none had diabetes. However, they were all aware of it through their extended family networks. None of the women identified stress or smoking as a health challenge. This may be because smoking is not viewed as an immediate health challenge but as something that will affect them in the future. Conversely, they may not feel vulnerable to the morbid effects of smoking. This may have developed because senior female relatives in the family who smoke appear to live long and full lives.

Participants predominantly cited external causes that were out of their control as being responsible for their health challenges. This finding is consistent with previous research which demonstrated that when health challenges are seen as unchangeable people are more likely to engage in emotion-focused coping (Folkman & Lazarus, 1991). The adverse health outcomes tend to

cluster among those that are not in control of the challenges (Blane, 1995; Antonovsky, 1967)

Entities that experience such clusters of health challenges and disadvantages have increased exposure to a broad range of psychosocial variables that are predictive of morbidity and mortality. These include:

i. A lack of social relationships and social supports;
ii. Personality dispositions, such as a lost sense of mastery, optimism, sense of control, and self-esteem or increased levels of anger and hostility; and
iii. Chronic and acute stress in life and work, including the stress of racism, classism, and other phenomena related to the social distribution of resources (House, et al., 1995; House & Williams, 1995; Kaplan, et al., 1996; Kessler & Neighbors, 1986; Rodin, 1986; Williams, 1990; Williams & Collins, 1995).

Both health behaviours and socio-economic factors are important determinants of mortality. However, while health behaviours are related to both income and education, they account for only a small

In this study, financial and time constraints were frequently

Furthermore, participants who did not have a first degree relative with diabetes tended to believe that they were not at risk. Such observations could be seen in terms of Rosenstock's Health Belief Model as indicating high levels of perceived vulnerability (Rosenstock, 1974).

Most women reported feeling overwhelmed by the health challenges they faced. They cited tiredness, depression, and stress as common emotional responses to health challenges. This in turn contributed to the coping strategies they predominantly used i.e. emotion-focused.

Most of the women had engaged in a number of problem-focused coping strategies, but had achieved little success. They had used a variety of diets and exercise programs that in some cases had led to them gaining even more weight Furthermore, some had visited food banks to supplement their family's diet, only to be given a box full of unhealthy food.

The participants utilised emotion-focused coping strategies more often than

obesity, which in turn can help to manage or prevent diabetes. Therefore, future research should address all of these health challenges within one intervention targeted at this group. For example, a diet and exercise program for urban CIW that promotes accessible and enjoyable physical activity and life-long healthy eating habits.

The present results need to be interpreted with a degree of caution. Firstly, the age range of participants is very narrow. A wider range may have yielded a broader range of health challenges. Secondly, despite assurances of confidentiality, the women may have believed that their information might become the topic of gossip, as the interviewer was a relative or friend. Thirdly, they may have been conscious of potential future embarrassments next time they meet the interviewer. Another possible limitation may have been that all of the participants were older (than the majority of CIW who were born in New Zealand (30 versus 20 years old, respectively).

Despite the limitations discussed, the sample in this study is probably typical of a relatively defined cross-section of CIW. This cross-section has an approximate age of 30, they occupy the lowest socio-economic level, they have children, and they live in materially-deprived areas in South Auckland. The findings will be applicable to similar groups of Pacificans, especially in the South Auckland area.

this study gives us some insight into the ways that some urban CIW make sense of the health challenges they encounter, and provides us with indicators of possible targets for health interventions.

Health funding authorities have long been calling for ethnic specific studies that explain the health beliefs and coping strategies utilised by underserved groups so that programs can be more effectively tailored to their needs. Therefore, this study gives us some insight into the ways that some urban CIW make sense of the health challenges they encounter, and provides us with indicators of possible targets for health interventions. Similar research should be conducted among other Pacific ethnic groups.

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