CHOSEN OR FORCED:

EMPLOYMENT AND WOMEN'S HEALTH

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ABSTRACT

Research on the effects of employment status on women's health has produced conflicting results. This study looked at women's health not only in the context of employment status, but also in the context of whether the subjects perceived they had some discretion or choice over that status. One hundred and seventy-one women in Wanganui indicated whether they were working or not working from choice. This enabled the proposition that perceived discretion over employment status accounts for more variance in women's physical health than employment status *per se*, to be tested.

Health status was defined for analysis by self-reports of health, symptoms, and doctor visits. In addition the frequencies of engaging in 20 health behaviours were measured. The health behaviours most often performed were those of hygiene and nutrition. Subjects also responded to questions on the meaning and value of health, barriers to health care, and other sources of health advice they would use. Results showed that subjects defined health primarily in affective terms, and over two-thirds regarded their health as very important. Cost was the most often cited barrier to health care, and health advice other than from a doctor was most likely to be sought from naturopaths and/or homeopaths.

Significant intercorrelations were found between health variables. The strongest relationship was between self-rated health and symptoms, supporting the contention that women are attuned to somatic changes in their physiology. Also significant was the relationship between self-rated health and health behaviours.

Employment discretion was found to be a significant factor for symptoms, self-rated health and health behaviours, but employment status was not significant. No interaction effects were found between discretion and employment status.

Results indicate that women who believe they have discretion over their employment status rate their health higher, engage in more health behaviours, and report fewer symptoms than women without such perceptions. It appears that rather than focussing on the external factor of employment status, future health research may more usefully address internal factors of perceived discretion and choice.

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INTRODUCTION

The Meaning of Health

Though all may agree that it is "good" to be healthy, there is no simple agreement on what is "health". Stone, (1979) notes that it derives from an Old High German word meaning "hale" or whole. This definition suggests that if we are healthy we are robust and whole. Dintiman and Greenberg (1980) note that health may be defined in terms of quality of life, or quantity of life, and that it is multi-faceted, dynamic and a matter of values. It may be defined in positive terms (i.e. well) or negative terms (i.e. not sick). Some behaviours serve to enhance health, others reduce its quality.

Women may regard health differently from men and may ascribe different meanings to it (Kristiansen, 1989). The beliefs and perceptions we hold also act as health mediators and qualify health meaning. What health means to any women may depend on the value she places on being healthy, on her beliefs about health, and the cost to her of losing her health.

Gochman (1988a) in a lucid discussion on the meaning of health cites the World Health Organisation 1946/48 definition which states that health is not merely the absence of disease, but a state of complete physical, mental and social wellbeing. He goes on to argue for the recognition of common themes in definitions in an attempt to simplify the current multi-elemental positions. Elements suggested by Gochman include the differences in lay and professional definitions of health; the orientation or view of health and whether that view is negative or positive; and differences in actual health practices. Gochman suggests that there are three components of health: biomedical, which includes the presence or absence of physical symptoms; personal, which includes internal psychological variables; and sociocultural, which includes external and environmental variables.

Taylor (1990) elaborates on Gochman's position and suggests a biopsychosocial model of health which has three more detailed components: biological, including medical factors of genetic inheritance and predisposition; psychological, which Taylor splits into two dimensions - cognitions (perceptual) and emotions (affective); and social, including relationships and social support, cultural and employment factors.

Lay concepts of health influence medical thought and act as a filter, clarifying communication between lay and professional persons. By obtaining the meaning women place on health we are in a better position to study health from a woman's perspective. The lay definitions of health most commonly offered encompass three broad foci: biological or medical - not sick; social - fit, and able to work; and psychological - driven by affect, feeling well, and by cognitions, able to cope. The ability to take care of ourselves may be included in the social component. We do not wish to be a burden on others, whether nursing staff or family members, and therefore we wish to be fit. Perhaps this factor most closely resembles the historic (Stone, 1979) definition of being healthy as being hale or robust.

Herzlich (1973) from definitions offered by her French subjects, posits the concept of health "equilibrium", where equilibrium is an autonomous experience comprising psychological and physical wellbeing; activity; and good interpersonal relationships. It appears that health and disease are often viewed on a continuum, with no sharp division between them. Herzlich (1973) suggests from her findings that subjects perceive descriptive and normative concepts of health. Both of these concepts are valid and may co-exist within any individual's framework of experience.

Blaxter (1983, cited Gochman, 1988) in a sample of Scottish women, found that they defined health as being able to work. The women accepted that disease may be present (i.e. chronic) without being ill (i.e. unable to work). The conclusion drawn from this sample was that one can have a disease and

yet still be healthy. These findings are similar to those of Herzlich.

So if we are healthy, are we: (a) disease free; not ill; (b) fit and able to work and care for our family; (c) feeling well; (d) engaging in healthy behaviors; able to cope with daily hassles? Within these definitions lie the three core components: (a) biological; (b) social; and the psychological dimensions, (c) affective and (d) cognitive.

Biological Component

Responses on the meaning of health for this component are usually phrased negatively. Examples include "not ill" and "not visiting the doctor". Woods et al. (1988) in the United States questioned 528 women aged between 18 and 45 years of age, for definitions of the meaning of health. Results from this study found that the most frequent response overall (57%) alluded to biological and medical (bio-medical) meanings. Calnan and Johnson (1985) did not give percentages but over-all their subjects offered bio-medical definitions (e.g. not sick) more than socio-cultural and personal meanings. In contrast Colantonio (1988) found that these factors were given low priority by her subjects, with a frequency rate of only 13% for these responses.

One explanation for the disparity may be that whereas Woods et al.(1988) and Calnan and Johnson (1985) surveyed only women, almost half the subjects in the Colantonio study were men, who may consider social factors of employment and so fitness, more salient. This is echoed by Macky and Haines (1982). Another reason may be that women may be more attuned than men to physical symptoms and so report in medical terms, as suggested by Verbrugge (1989). Verbrugge notes that women utilise health services more than men, and this also may help to explain the emphasis on medical descriptors. Pennebaker (1982) notes that our attention to symptoms tends to focus on physical and somatic cues which would help to explain why female-only samples exhibit more concern with their health in a medical, biological context.

Social Component

Responses on the meaning of health in this context reflect external variables including employment, social support, socio-economic status, and culture and are commonly described as "fitness" and "ability to work". Less common are descriptions covering wider environmental issues such as clean air.

Calnan and Johnson (1985) split their subjects into high and low socio-economic (SES) groups. Their low SES subjects rated being fit as their prime definition of health. The low SES women needed to function "getting through the day" (p.63) either to keep the family intact as paid help was not an option, or because they themselves worked.

Colantonio's (1988) subjects rated being fit as their prime health definition with 36% of responses compared to 16% for feeling well. We may expect that these subjects' concerns about their ability to work would explain the priority given to concerns about fitness. As noted above, these included men who could be expected to support a family unit.

These responses reflect the practicality of life in society today and the relevance of functional ability. Whether we function in our daily tasks and routines (getting through the day) may be more important to us than whether we are sick or well. Financial factors possibly act to exacerbate the salience of fitness when a job is a scarce commodity and the pressure to stay fit is high.

Social factors of role performance and the ability to work were only the third most frequently offered response by Woods et al.'s (1988) subjects. However, Woods et al. note that these responses were more frequent from both older and lower SES women, who may have more family responsibilities.

Culture may be expected to mediate our perceptions of what is health including: beauty and attractiveness; pain and symptoms; illness; seeking

advice; and our perceptions of stressful events. We exist in a framework of cultural and societal norms and mores, and to define health otherwise is difficult. There may be a cultural factor in the three studies cited. Woods et al.(1988) sampled United States subjects in Seattle with a large proportion of black and Asian women; Colantonio (1988) and Calnan and Johnson (1985) both used subjects from the greater London area. No ethnic groups were particularly specified, therefore these samples may be primarily Anglo-Saxon. Wide differences in ethnic backgrounds, together with similarly wide lifestyle differences between residents in the cities of Seattle and London may be factors in these health definitions.

The common thread running through much research on health in a social context is the ability to work, encompassing as it does socio-economic, social support, and environmental issues. Social support variables have been less often cited in health meanings, with few subjects offering "having friends", as a definition of good health. However there is an argument (e.g. Cobb, 1974) that employment provides social support. This may be more true for men than for women, because women usually have social networks in their neighbourhood as noted by Ross and Mirowsky (1989).

Psychological Component

The psychological component of health has been described earlier as having two dimensions: emotional or affective; and perceptual or cognitive. French studies cited by Colantonio (1988) found hedonistic attitudes to life which included health as "the greatest richness" (p. 5). Positive affect was the second most frequently cited health meaning by Woods et al.'s (1988) subjects.

Colantonio's study from a group of men and women also found affective definitions were the second most frequently cited health meanings. Possibly a female-only group, would increase this response rate, as Kristiansen (1989) maintains that women value health in affective terms. If women do value health affectively, this may contribute to their choice of descriptors.

Calnan and Johnson (1985) report that across both their SES groups, the majority of women when questioned directly believed "you had to be happy to be healthy" (p. 60). When the Woods et al. (1988) subjects are examined by SES, the younger and higher SES women reported affective responses more frequently. This may suggest that women under middle-age are better educated and more able to express themselves and define health meaning in abstract affective terms.

It appears that cognitive factors such as the perceived ability to cope with life, and beliefs about the efficacy of performing health behaviours are generally ranked less frequently in health descriptions than other components noted. Only 10% of Woods et al.'s (1988) subjects cited cognitive definitions; and Colantonio's subjects rated cognitive factors fourth, after social, affective, and biological meanings. This may be partly as a result of SES, and partly as a result of culture and situationally determined factors.

Calnan and Johnson (1985) found that high SES subjects offered definitions such as "plenty of exercise" and postulated that these women may have the time and the money to undertake such behaviours, while low SES subjects may not. Therefore, whether the low SES subjects believed in the efficacy of such behaviours would be irrelevant to their rate of engaging in them. However, low SES subjects may be reactive and passive, and so less likely to attempt to bring about change.

Passive behaviours in this context suggests that individuals perceive themselves as lacking control. Individuals who believe they are in control of their lives are more likely to be problem solvers and take a proactive stance on health (Ross, Mirowsky, & Goldstein, 1990). Beliefs about personal control may be the key to personal health, but may be difficult to express. This may be why cognitive meanings feature less often in descriptions of health even though our perceptions and beliefs drive our behaviours. Therefore, while acknowledging that SES impacts on health, this study intends to focus on internal perceptions,

employment and health. As increasing numbers of women work the meanings they ascribe to health may be defined differently.

To summarize, women who define health primarily in bio-medical terms are in essence reporting health in the negative, - i.e. not sick. Women who define health primarily in psychological terms are in essence reporting health in the positive, - i.e. feeling well, happy, and able to cope. Their reports however may be mediated by the life pressures under which they are operating. As women enter their thirties and forties and acquire more work and/or family responsibilities, health is more likely to be defined as being fit. The perception of control is regarded as a key to health behaviors and status and lies within the psychological component of health. If we think we are in control (cognitive), we feel better (affective) - about ourselves, our work, our lives. For the remainder of this study, psychological factors are therefore taken to encompass both cognitive and affective components.

Frameworks for Health Behaviour Research

The efforts to define health meaning and context, and the increasing recognition of the interaction of psychological and physical factors led in 1978, to the formation of a separate division of the American Psychological Association - Health Psychology (Taylor, 1990). Health psychology is based on broad principles of thought and behaviours, rather than the medical model's organisation and emphasis on specific disease (Taylor, 1990). The recognition of these interacting variables has led to increasing efforts in psychosocial education, as researchers and public policy makers alike, strive to improve health (Matarazzo, 1982). The West now accepts that our internal cognitions and perceptions mediate our physical health status, a position which Eastern thinking has long held (Chopra,1990; Totman, 1987).

For any study on health related issues a model or conceptual framework defines parameters and context. The world of health psychology has seen research on

health related behaviours more recently focussing on cognitive determinants of behaviours undertaken. Cognitions including beliefs, expectations, values, perceptions, motives, and attitudes, provide the means for individuals to interpret and understand their world (Gochman, 1988b), and supporting theories for each have been proposed.

Health Locus of Control

In the mid 1970's, Wallston, Wallston, Kaplan, and Maides (1976), proposed a cognitive framework for predicting health behaviours, based on Rotter's locus of control concept (Rotter, 1975). Wallston et al. (1976) argued that the individual's perception of control is a major influence on any decision to undertake health behaviours, and that those internals who value health are more likely to seek out relevant information. In general results were inconclusive (Wallston et al., 1976), and so the original internal/external formulation was subsequently altered to encompass three dimensions of control: chance, internal, and powerful other; the Multi-dimensional Health Locus of Control: (MHLC; Wallston, Wallston, & DeVellis, 1978). Again, results from the MHLC were inconclusive.

In 1984, Smith, Wallston, Wallston, Forsberg, and King, used the MHLC as a measure of desire for control over three different health related situations: childbirth, signing a living will, and choosing a place to die. Results again were inconclusive, and Smith et al. suggest that their measure may not be useful for factors which are difficult to discuss such as death and dying, or for very specific choices and fine discriminations. The authors concluded that their conceptualisation was perhaps too narrow.

More recently Wallston, Wallston, Smith, and Dobbins (1987) have concentrated on perceived control (PC) which they define as a combination of efficacy, attributions, and locus of control. Wallston et al. (1987) note that their new PC concept is broader than their previous work on locus of control, and

is measured on two dimensions; time, and whether the object of control is over outcome, behaviour, or process. They suggest that PC over outcomes moderates the effect of PC over behaviour. If this proves to be so, we may expect to see individuals who believe they have some control over their health status, undertaking behaviours to achieve and maintain that status to the level they desire.

Another measure using locus of control as a basis for health research has been developed by Lau (1982, 1988). The Lau-Ware measure is also multidimensional and similar to the MHLC (1978) measure developed by the Wallstons. The Lau-Ware measure uses the three subscales of the MHLC and adds a fourth dimension called "General Health Threat", which mirrors perceived suceptibility from the Health Belief Model (HBM). Lau (1982) found this dimension showed significant predictive validity for regular medical checkups but not for self-care behaviours in a high health value sample. Perhaps subjects perceiving themselves to be susceptible to disease and illness feel less in control of their lives, in which case the findings would be as expected.

To summarize the research involving locus of control, while the MHLC model has intuitive appeal it appears to have been subjected to numerous tests over the past fifteen years without reaching any firm conclusions. More recently, researchers (Lau, 1988; Wallston et al. 1987;) have included new dimensions particularly from the HBM (e.g. time-frame, and threat), in their attempts to improve the model.

Attitudinal Model

Another cognitively-based framework for health research uses attitudes which drive health behaviours as predictors of behaviour (Ajzen & Fishbein, 1977; Ajzen & Timko, 1986). Attitude is a motivational concept which is assumed

to reflect beliefs about the behaviour in question. A separate factor incorporated into the 1986 study is perceived control. Perceived control (defined by the HLOC scale as above) is assumed to reflect the real or imagined presence of factors which include beliefs. Ajzen and Timko (1986) found that specific behaviours could be predicted with a high degree of accuracy.

Ajzen and Timko (1986) argue that global measures of health attitudes have been used unsucessfully to predict specific health behaviours, and because global measures reflect "a multitude of specific behavioural dispositions ....they can therefore not be expected to correlate with specific health-related actions" (p. 261). A counter-argument may be that it is just as necessary to improve the global health of a population, and so a global measure to capture overall behaviours is useful, even if it does not predict specific behaviors.

The measure developed by Ajzen and Timko (1986) comprises 24 health-related behaviours, which are worded to elicit scores on attitude toward the behaviour, perceived behaviour control and behaviour frequency. The model of attitude, perceived control and behavioural intent computes scores on two factors - one for "desirability" (a cognitive assessment of the benefits attached to the performance of a health behaviour), and one for "enjoyment" (an affective assessment of the pleasure or displeasure associated with the performance of a health behaviour). This is similar to the HBM approach of cost/benefit analysis as described by Janz and Becker, (1984), and Kirscht, (1988).

Ajzen and Timko suggest that, taken collectively, health-related actions are engaged in because of psychological factors. However, they argue that these actions are not undertaken because of the benefits attached to the performance of such behaviours as measured by an evaluative judgement (the cognitive component). Rather, they argue that pleasure or enjoyment associated with health behaviours (the emotional or affective component), predicts the individual's likelihood of engaging in such behaviours. This is open to debate

as it could be argued that some behaviours are undertaken either because the individual makes an evaluative judgement (e.g. smoking causes lung cancer, so I won't smoke); or because she makes an emotional judgement (e.g. I'm afraid of lung cancer, so I won't smoke); both of which lead to the same behaviour - the avoidance of cigarettes.

Ajzen and Timko's (1986) attitudinal model seems to borrow heavily from the HBM and the HLOC measures. Attitudes may be less stable than either beliefs or locus of control, and so are likely to be a less useful measure of health actions.

Health Belief Model

Perhaps the model most widely used as a framework for the interpretation of health related behaviours, is the Health Belief Model (HBM). It was originally proposed by Hochbaum in the 1950's, in an endeavour to explain why the public was not convinced of the merits of preventive health measures advocated by government public health education programmes (Hochbaum, 1970). The model, based on Kurt Lewin's theory of value expectancy, has evolved over more than thirty years with major development by Rosenstock and his associates (Rosenstock & Kirscht, 1979).

Because the HBM grew from applied research into health education problems, it stood first and foremost as a practical tool. Unlike other models, it does not target specific health behaviours, but rather a more global concept of health. This global concept encompasses health behaviours taught to us as children and taps into fundamental beliefs about what we should do to maintain and improve our health. Women in their teaching and nurturing capacity are major role models from which children may learn health habits (Bandura, 1977), including such direct health-related behaviours as teeth brushing, hand washing, and attention to diet. Such behaviours have been described as "hygiene" (Colantonio, 1988), and have been shown to be stable (Lau, 1988).

Broadly speaking, the HBM is a cost/benefit analysis of expectancies. The individual analyses the likelihood of contracting an illness (perceived susceptibility), the seriousness of such an illness as it impacts on her life (perceived severity), the benefits of undertaking a behaviour to avoid illness or maintain health (perceived benefits), and the personal cost in undertaking a behaviour (perceived barriers). All these factors may impact on her decision to undertake a specific behaviour, and are quantified in the context of how frequently she chooses to engage in the stated behaviour. Unlike the Attitudinal or HLOC models there is no specific instrument. Researchers design their measure to capture the behaviours under enquiry.

Recently, a comprehensive survey (Janz & Becker, 1984) of all research which has utilised the HBM conceptually, separated studies into two sections: pre- and post- 1974. Prior to 1974 perceived susceptibility was rated the most significant factor. However recent studies show perceived barriers (the cost of the behaviours) are rated most significant, followed in descending order of importance by benefits, susceptibility, and severity. Perceived barriers may also operate in the context of perceived control. It may be expected that women who believe they have some measure of control over their life do not perceive as many barriers to health care.

The salience of health habits learned as a child have also been shown to associate with beliefs about the controllability of health (Lau, 1988). Sickness in a family member reduced those beliefs, but recent personal sickness did not. These findings led Lau (1988) to surmise that health beliefs were relatively stable, and developed from childhood, but that beliefs about ability to control illness particularly, are moderated by our family experiences.

A later addition to the HBM was described as "cues to action" (Becker et al., 1977). HBM researchers argued that a cue was necessary to trigger an action. Such a cue may be internal (e.g. a symptom, a fear), or external (e.g. a media message). Although cues to action are salient factors in health behaviours, they

are not specifically examined here as they fit more comfortably with health education research, which is beyond the scope of the present study.

Different avenues of health research utilising the HBM have included health behaviours (Harris & Guten, 1979; Langlie, 1977); compliance (Becker and his associates, in Janz & Becker 1984); and sickrole behaviour (Kirscht 1974, cited Kirscht 1988). The advantage of the HBM is that the four major factors (barriers, benefits, susceptibility, severity,) can be adapted to any research orientation.

In sum, beliefs which drive health behaviours have been the subject of many reviews which have not only demonstrated how the original HBM has been utilised, but also revised and expanded. The current HBM possibly provides the most comprehensive framework for explaining why we believe that engaging in certain health behaviours will lead to an improved health status. We weigh up the costs of a health behaviour against the benefits to us of undertaking it. Both of these are evaluated in the context of how likely we are to become ill, and how seriously an illness would impact on our life.

Health and Appearance Value

Milsum (1980) suggests that the major determinants of health are usually summarised under four headings: nutrition; physical fitness; stressors; and stress management which we may also call coping responses (see Folkman, Lazarus, Gruen, & DeLongis, 1986; Roskies & Lazarus, 1980). To these four determinants he adds a fifth point - meaning or purpose. Milsum argues this point must be added to our schema as it provides us with the will to engage in behaviours, and also belief in the efficacy of our actions.

Milsum describes health as being a five-point star with nutrition and physical fitness the physical anchors; stress and coping the emotional, psychological, and intellectual midpoints; and meaning, or purpose at the apex, guiding and

overriding all aspects of behaviour. Milsum further argues for the need for harmony between physical, emotional and spiritual aspects of the individual which strikes a responsive chord with Maori (Durie, 1983, 1985), and Eastern positions on health (Chopra, 1990).

Milsum's "purpose" as a motivator to engage in a specific behaviour, is comparable to the "value" described by other researchers such as Kristiansen (1985). It is generally agreed that something must be desired or valued before any behaviour will ensue to attain it. The assumption that good health is desirable and salient to the individual may be implicit in any health related research. However, Gochman (1988a) reminds us that good health in itself may not be the motivator for a specific health-related behaviour.

This is echoed by Hayes and Ross (1987) who note that.."most people seem to be motivated by looking good as least as much as by maintaining good health" (p. 126). The value women place on health and on healthy behaviours therefore, may be as much to do with appearance as it is to do with health per se.

It has been suggested (Kristiansen, 1989) that women value health emotionally and affectively and associate it with happiness, a comfortable life, and pleasure values. If this reflects in the meanings they attribute to health, it may help to explain the high frequency of affective responses found by Calnan and Johnson (1985) in direct questioning. However women may also value health in a striclty practical way if it means they have functional ability, and can work and care for a family. How health is valued therefore may depend on the woman's role, but is also dependent on her beliefs and perceptions about herself.

Health Behaviours and Health Status

What are health behaviours? Simply stated, health behaviours are those actions undertaken by people to enhance or maintain their health (Stone, 1979). They

have been the subject of numerous definitions, studies and comparisons. In attempting to define health behaviours, Gochman, (1988a) posits that they may be analysed in three ways. These are:

(a) as antecedents or causes of diseases, illnesses, and health status (e.g. Belloc & Breslow, 1972; Kegeles, 1969; Sobal, Valente, Muncie, Levine, & Deforge, 1985). These analyses set the foundations enabling better understanding of health;

(b) as targets for interventions by governments and agencies, aimed at producing a change in health status through public education (e.g. Hochbaum, 1970, Singer & Krantz, 1982);

(c) as individual and social phenomena - outcomes of personal cognitions, personality factors and social processes. These factors are discussed below.

Health behaviours have been variously defined as protective (Coburn & Pope, 1974), and preventive (Langlie, 1977). The term "proactive" is used in this study implying both of these descriptors, as well as having connotations of positive effort in achieving and maintaining good health. Proactive behaviours are therefore positive and initiated by the individual. They impact on health status (see (a) above), and are driven by beliefs and mediated by circumstances (see (c) above).

A recent survey (Sobal et al., 1985) of doctors practising in the United States identified nutrition factors as having particular importance for health, and smoking as having the highest negative impact on health, with 94% of these physicians considered the elimination of cigarette smoking to be very important. Nutrition and smoking choice therefore may be considered key behaviours.

We acquire health-related data from a variety of sources, any or all of which

may prompt us to examine our own practices, symptommatology, and health status. This examination allows us to draw conclusions based on our awareness and our interpretation of these data as Pennebaker suggests (Pennebaker, 1982; Skelton & Pennebaker, 1982). At the most simplistic level, there may be a circular model comprising health beliefs, which motivate health behaviours, which in turn impact on health status. It therefore follows that health status itself is related to health beliefs, because in essence how we "feel" may motivate us to engage in specific behaviours which we believe will assist us to return to good health. For example, the woman with a persistent cough may be motivated to stop smoking in the belief that she is vulnerable to a more serious morbidity (e.g. lung cancer), and that refraining from a behaviour perceived to be harmful may remove or lessen that threat.

A variety of internally driven rationales for engaging in particular health behaviours have been suggested by many studies. These rationales may include:

prevention:

exercise, (Borkovec, Mathews, Chambers, Abrahimi, Lytle, & Nelson, 1987; Keir & Lauzon, 1980);

diet care including sodium and cholesterol awareness (Walker, Sechrist, & Pender, 1987);

adequate sleep (Belloc & Breslow, 1972);

health checks, which may be self-initiated such as breast examination (Calnan & Rutter, 1988; Hallal, 1982), or carried out by a doctor or dentist (Sobal et al., 1985);

treatment:

self-diagnosis and self-care (Krantz, Baum, & Wideman, 1980; Levin, Katz, & Holst, 1977; Woods, 1989);

appearance:

concern for body image (Butters & Cash, 1987); and attractiveness (Gochman, 1988; Hayes & Ross, 1987);

gender:

Nathanson, (1980); Verbrugge, (1983, 1985, 1989); Waldron, (1988);

social acceptance:

seat-belt wearing, non smoking, avoidance of alcohol when driving (Langlie, 1977);

emotion:

fear and vulnerability (Kegeles, 1969; Kirscht, 1988);

general and specific personality factors:

Bandura, (1977); Cohen, (1979); Kawash, Woolcott & Sabry, (1980); Kobasa, (1979); Kobasa, (1982); Kobasa, Maddi, & Kahn, (1982); Strecher, DeVellis, Becker, & Rosenstock, (1986).

Any one of these rationales for health behaviours may also be studied in the context of external variables including:

- # social environment, (Baum, Deckel, & Gatchel, 1982; Moos, 1979);
- # culture, (Durie, 1983, 1985; Hochbaum, 1970; Weidman, 1988);
- # socio-economic status, (Coburn & Pope, 1974; Mirowsky & Ross, 1986; Williams, 1990);
- # marital and family role, (Ross, Mirowsky, & Goldstein, 1990; Umberson, 1987);
- # social networks, (Langlie, 1977; Ritter, 1988);
- # social support (Cohen & Hoberman, 1983; Ross & Mirowsky, 1989; Suls, 1982).

The increasing numbers of studies since the 1980's may be a result of changing foci on health, changing patterns of health and disease states, and changing employment patterns.

Changing Patterns of Health and Disease

Research on health status appears to have been as inclusive as that on health behaviours with a myriad of internal and external factors impacting on such status. Cohen (1979) notes that health status may be examined either through personality characteristics or environmental/life situations. She further notes that these may also be highly interactive. Personality characteristics influence how life situations are perceived and acted on, while conversely, life situations may influence the development of personality characteristics. Life situations in particular relating to the workforce have made a major impact on changing health status of Western populations.

As the post-industrial society gave way to the information and technology society, the stresses and strains of daily life altered and with that the individual's health and disease states. Matarazzo (1982) notes that in the United States death rates from infectious diseases have dropped from 36% in 1900 to 6% in 1980, and that death rates from chronic diseases have increased from 20% in 1900 to 70% in 1980. New Zealand has seen a similar shift in health and pathology over the fifteen years prior to 1983, with heart disease being the single largest cause of all deaths, followed by cancer (Bunnell, 1987). However, recent mortality and morbidity figures show that in the same time frame, heart disease in women reduced slightly as the major cause of death and cancer deaths increased.

Psychiatric admission figures cited by Bunnell (1987) between 1968 and 1983 show an increasing rate of female readmissions for neurotic depression and for alcohol dependence or abuse. These types of illness may be triggered and then exacerbated by the rapidly changing lifestyles and associated tensions experienced, especially by women who are often forced to maintain a home and family under severe financial restraints. They may have a partner who is unemployed, or be unemployed themselves and experiencing feelings of powerlessness. On the other hand women working in paid employment from

financial necessity and with multiple demands, may also experience lower psychological and physical health status.

Further, women as care-givers are likely to attend to the health of their children and go without care themselves if a choice must be made. These figures suggest that increasing numbers of women are using alcohol as a maladaptive coping mechanism, or are succumbing to depressive illness as they fail to cope with life.

Bunnell (1987) makes the observation (p. 19) that New Zealand has no national data on "everyday" health as opposed to hospital admissions. These data are routinely gathered overseas and normally include self-reports of the individual's health profile over a defined period. In order to obtain a comprehensive health "picture" several factors are normally measured. These include: a checklist of physical symptoms; an inquiry into any chronic condition (i.e. present for more than six months), identification of recent acute illness or injury, a report of functional status, a self-rating of present health, and the utilisation rate of health services. All of these variables comprise our health status, and are mediated by internal factors such as affect and cognitions, and external factors such as employment.

Health and Employment

Whilst being unemployed appears to have clearly deleterious effects on men's physical and psychological health, research on the relationship between employment and women's health has been largely inconclusive. Contradictory findings have been described in studies which have examined factors such as multiple roles and overload, power, and perceptions of control. These are outlined in more detail below.

Many studies on psychological health use only male subjects who in their traditional role of "breadwinner" may be expected to find unemployment

threatening (e.g. Cobb, 1974; Kasl, 1979). Conclusions reached by these studies noted that significant physiologic effects and reduced immune competence correlated with depression and the negative effects of unemployment.

Studies on the psychological outcomes of unemployment (underload) or employment (overload) as described by McGrath (1970), link these states with the physical symptoms normally associated with depression. These include sleep difficulties, weight change, fatigue, and lack of energy. If underload or overload are being experienced by an individual, it is reasonable to expect these physical symptoms to accompany any reported depressive symptoms. They may also be the result of a perception of a lack of control as suggested by Linn, Linn, and Jensen (1984) and more recently by Arnetz et al. (1987).

Kessler, House and Turner (1987) examined unemployment in both male and female subjects as a predictor of lower physical and psychological health, concluding that the effects of unemployment varied depending on respondents' access to other resources. As noted above, other studies have looked solely at the female role in employment as a health variable which is affected by multiple demands. Verbrugge (1983) concluded that employment which provides stimulus and social interaction has more positive health effects, Rosenfield (1989) argued that employment may have more negative health effects because of multiple demands.

Health has been studied as a dependent variable (O'Brien & Kabanoff, 1979), or antecedent variable (Waldron, Herold, Dunn & Staum, (1982) of employment status. Waldron et al. (1982) used a female only sample examining women's self-reported health and employment in two longitudinal studies, concluding that being employed did not affect general health but that women who were not healthy were selected out of employment - the healthy worker effect. A caveat on this research is the time-frame used. Labour force participation was examined between 1972 to 1977, with original information

from as far back as 1965. While longitudinal studies provide useful data, these data may be overtaken by social and environmental changes, thus making findings less salient. The workplace, stressors, and lifestyles of fifteen and more years ago have changed markedly in subsequent years, and this may lessen the usefulness of Waldron et al.'s thesis. Moreover, economic circumstances may mean that women who do report multiple symptoms are forced to stay in paid employment because they cannot afford to do otherwise.

Employment in and of itself then may be viewed either as positive or negative. Positive effects include social support, financial income, and structure and meaning to our life. Negative effects surface if work exerts too many demands on us. This may occur if we view work as being either beyond or beneath our capabilities; or if it means we must function in multiple roles so leading to stress responses.

Multiple Roles

The effect of multiple roles has been a major orientation of research into female health and employment. Roles have also been examined in conjunction with perceptions of choice and control, the key factors in this thesis. Studies have included both physical and psychological health variables.

For example, Rosenfield (1989) has looked for links between multiple demands, perception of control and psychological health. Rosenfield suggests that high demands on the individual produce the highest symptom reports of anxiety and depression, and that role overload and low power, by reducing the individual's sense of control create greater symptoms.

Employment, argues Rosenfield, is not "consistently positive because it often trades one source of low control for another" (p. 77). Housewives have a low power situation, but when this is exchanged for employment there may be role overload, and so high symptom reports are still experienced. Women in full-

time employment and with children at home reported more symptoms than women with children but working part-time, thus suggesting that children provide a health system overload. Barnett and Baruch (1985) agree with this, finding in their research that the role of parent was a major source of stress for women between 35 and 55 years. Rosenfield concludes by arguing that demands and power are more relevant to health than employment status per se, with high demands and low power equating to more depression and anxiety.

Nathanson (1980) examined employment, education, and family roles as they impacted on women's physical health measured by activity days, doctor visits, and self-ratings. She concluded that her housewife sample rated their health as poorer, had more activity restriction, and more doctor visits than a sample of employed women. Her sample was aged 45-64 years and so may be affected by the menopause and physical ailments common to that age group such as osteoporosis and arthritis. Also, once unemployed, women of this age may be unlikely to get another job, thus exacerbating any negative effects of unemployment and increasing their feelings of powerlessness.

Nathanson found a significant interaction between having children, employment, and subjective health reports. Women who worked and had children at home were more likely to visit a doctor, and less likely to report restricted activity. This, Nathanson interpreted rather ambitiously, as having better health. A caveat on these findings is that her approach emphasised functional status rather than actual symptom reports. Nathanson (1980) concluded that the effects of employment were likely to be positively associated with health status. This was particularly so for women with the least access to opportunities for self-esteem and social support, other than employment.

Parry (1986) took a sample of working-class mothers and investigated their psychological health. Support in this study was defined as being either instrumental and practical, or emotional and affective. Parry found overall that

being in paid employment did not produce any effect on the sample's health, but that one subgroup of working mothers who had experienced a severe life event and who also lacked emotional support exhibited high levels of psychiatric symptoms. Parry suggests that financial necessity may have driven them to seek paid work and this plus child care may have led to overload for these women, compounded by lack of support.

Barnett and Baruch (1985) also investigated women's psychological health in relation to employment and found *against* the role overload "scarcity" model as a significant predictor of anxiety, and *for* the concept of "quality". Whether at home or at work, Barnett and Baruch argue that the quality of the experience (of work or family/social roles) was predictive of health. This position has similarities to Rosenfield's demands/power argument, if high demands and low power equate to poor experiential quality. It also fits with the concept of choice where if a role is chosen there is higher health status.

The role overload concept has also been addressed by Verbrugge (1983) who concluded (unlike Rosenfield 1989) that multiple roles had no significant effect on health. She agreed with Nathanson (1980) that married women with children and in paid employment had better health than women operating without those life variables. The effects of employment are outlined again in Verbrugge's (1989) research which concluded that women have a high risk of morbidity because of social factors such as less employment, perceived stress and feelings of vulnerability to illness. Women who are employed argued Verbrugge (1989) therefore have a lower risk of morbidity.

The demands of multiple roles required from women who engage in paid employment therefore, have not been shown to produce consistent effects on physical or psychological health. These inconsistencies suggest that there must be another factor which overrides employment status and its associated demands on women.

This factor may be the perception of discretion or choice over one's

employment status.

Employment Choice and Control

The perception of choice or control as it affects employment status is seen here as a critical health factor. A dramatic study by Langer and Rodin (1976) highlighted the positive impact that perceptions of choice and control had on the physical health of an elderly institutional population. Subjects who chose their activities and who were given personal responsibility for aspects of their environment, reported feeling happier, were rated by nurses as engaging in more activities, and had improved health, in comparison to those in the non-experimental group.

A follow-up study described by Langer (1983) also found striking differences in mortality rates. The group given choice and responsibility had half the mortality rate of the non-responsiblity group. Further, although pre-intervention data showed no discernible health differences between the two groups, the responsibility group showed a greater mean increase in overall general health.

These data lead us to question whether choice and control may operate similarly as mediators of health, in the context of employment. Perhaps perceptions of discretion or choice over employment status are more relevant than whether an individual works or not. This may be particularly true for women, who are able to stay home with children without social opprobrium.

The salience of perceptions of control was illustrated by Welsh mothers. Interviewed by Pill and Stott (1985), they offered responses to questions on health and illness which reflected the complex interactions between the environment (e.g. unemployment), and the individual's response (e.g. their level of health). At least half held fatalistic views about the causes of illness which they regarded as being outside their control.

Therefore employment status in itself may not affect our health if we believe that we are in control and have discretion over whether we choose to work. This concept of cognition as a mediating variable has been suggested by Linn, Linn, and Jensen, (1984). Although these authors demonstrated the relationship between depression and lower lymphocyte reactivity in a male sample, they concluded that "...it still seems to be the **response** to the event and not the event that is important in explaining the impact on immune function" (p. 222, emphasis added). This position fits with the suggestion of this thesis that the individual's internal perceptions and beliefs are primary factors in the development of morbidity, rather than external and situational variables.

Arnetz et al. (1987) examined immune functioning prospectively in unemployed Swedish women who all received generous welfare support and some of whom also attended a programme aimed at reducing any possible negative psychosocial effects. The authors found decreased lymphocyte reactivity in both their unemployed groups leading them to conclude that the strain of unemployment impaired the competency of the immune system. This variation between the unemployed women and a control group of employed women existed even though financial support meant that money *was* not an issue. Arnetz and associates suggest that powerlessness is a likely factor and that further work in this area is needed. These preliminary findings seem to offer a rationale for why, if unemployed populations perceive themselves as powerless or without choice, reduced immuno-efficiency leads to increased risk of illness and so a lower health status. It may be argued that if a women is employed and still perceives herself as powerless, the same reduction in health status may occur.

Closely allied to choice, are the concepts of personal efficacy (Downey & Moen, 1987) and self-efficacy (Bandura, 1977; Strecher, DeVellis, Becker, & Rosenstock, 1986); control (Baum, Decker, & Gatchel, 1982; Pennebaker, Burnam, Schaeffer, & Harper, 1977; Wallston et al. 1987); hardiness (Kobasa, Maddi, & Kahn, 1982); and mastery (Folkman, Lazarus, Gruen, & DeLongis,

1986).

By feeling that one has the ability to achieve a desired outcome, (efficacy) one may experience better overall health. For example, Strecher et al. (1986) in a review of 21 studies, found a consistently positive relationship between efficacy and health behaviour change. Abramson and associates (1978) with variations of the "learned helplessness" construct, and Wortman and Brehm, (1975) integrating helplessness with reactance theory, showed that lack of control and lack of predictability lead to reduced functioning and negative health outcomes.

Perceived control (Wallston et al., 1987) has been studied in relation to health behaviours and health status. A caveat is noted by the authors that the effects of perceived control on status are mediated by behaviours. From their analysis they conclude that extraneous variables play a large part in any health outcome measure, but more pertinently they argue that perceived control over wellness may be quite different from perceived control over illness, and that measures often blur these positive or negative outcomes. If this premise is valid, a perception of control over health rather than illness, may initially impact on health behaviours.

Hardiness as a construct developed by Kobasa and her associates (1979, 1982a, 1982b) features personality dispositions of commitment, control and challenge. Kobasa et al. (1982b) suggest that hardiness "has its greatest health-preserving effect when stressful life events mount" (p. 175). She further argues that "hardy" personality types may be more expected to engage in positive health practices and so maintain their health status. The personality cluster of hardiness closely matches those internal factors which may lead an individual to believe they have discretion over the work environment.

Mastery has been examined by Folkman and her colleagues (1986) in relation to both physical and psychological health. Folkman et al.(1986) found modest

but significant correlations between the mastery variable and psychological symptoms, and between mastery and physical health. Folkman recorded significant negative relationships between appraisal, coping and physical health which indicated that "the more subjects had at stake and the more they coped, the poorer their health was. In contrast, the more mastery they felt, the better their health was." (p. 577). This tends to suggest that multiple roles lead to a reduction in coping ability, but it may equally be that mastery enabled better coping responses no matter the role. Therefore perceptions of being in control are still the key.

In summary, if studies on employment status and associated factors which may be expected to impact on health have not produced consistent results, it seems reasonable to suggest that some other factor is operating to mediate health. More recent studies have focussed on the role of internal mediation - variously described as discretion, choice and control, as a predictor of both health behaviours and health status. Therefore in the context of employment, perceived lack of discretion over employment status may explain negative health effects, and may exacerbate the impact of multiple roles when working, or of reduced support and interaction when not working.

This Study

Health behaviours are regarded as individual and social phenomena, the antecedents of health status, driven by personal cognitions and beliefs, and mediated by situational factors. The Health Belief Model (HBM) is used as the framework for eliciting information on health behaviours, because of its relevance to the variables under consideration. The HBM appears in many studies as a vital component part, even if other models are incorporated. For instance some researchers include elements of selected models and constructs such as HBM, MHLC, and self-esteem (Hallal, 1982) to capture motivators for behaviours, in this case breast self-examination in women. Others (Langlie, 1977) combine the HBM and external variables such as social networks to

examine preventive health behaviours. Ajzen and Timko (1986) include HLOC, attitude, and HBM items in their health behaviour measure. Barriers to health care are still expected to be salient, but our stable health beliefs often taught from childhood are expected to drive most behaviours (Lau, 1988).

Health status is measured using variables included in studies by Cohen and Hoberman, (1983), Hayes and Ross, (1987), Murchie, (1984), Seeman and Seeman, (1983), and Verbrugge, (1983, 1985, 1989). General agreement exists on the factors necessary to measure health status. These include self-ratings, symptom reports, functional status, and doctor visits.

Variables which directly impact on health but which fall outside the scope of this study include socio-economic status, marital status and family roles. The main focus of attention here is the relationship between employment and perceived discretion.

Why focus on female employment? Employment figures (September 1990 Labour Force Survey, Department of Statistics) show that 75% of part-time workers and 35% of full time workers were female. In the female workforce around one-third worked mainly in the traditional female areas of teaching, nursing, and the service sector. Women are now more likely to work for more years, and have less children, than in the 1950's (1986 Census, Department of Statistics). Further, economic conditions in New Zealand today make the employment of women more likely, often from financial necessity rather than choice. When incomes are examined, 80% of women aged 15 years and over, earn $15,000 or less, (Department of Statistics, 1987).

Also highlighted by these statistics is the fact that although almost as many women as men were out-of-work, the numbers receiving unemployment benefits were 28920, compared to 52,425 men in receipt of the same benefit. Women who wish to work and cannot obtain employment are therefore disadvantaged economically, with a subsequent negative impact on the family.

Women who do become unemployed find re-employment harder to obtain as was evident in the Mosgiel closure, and experience feelings of loneliness, anxiety and boredom (Hancock, 1981).

The women in the present study were in their teens and twenties during the 1970's, and becoming more socially aware, and more proactive in their efforts to improve women's physical, emotional, and social status both at home and in the workplace. Health related issues in particular have become more salient to New Zealand women in the 1980's, with public airing of women's concerns over their rights.

They may mirror Kristiansen's (1989) value thesis, by defining health primarily in terms of feelings, rather than in terms of practicalities. Nevertheless, their perceptions and cognitions relating to health issues, may still mediate actual physical health status. The premise that health as defined is valued for its own sake, is accepted for this thesis.

If work is valued and perceived to be unattainable we may expect lower health to ensue. On the other hand, if paid employment is not rated highly and is unattainable, there may be no adverse health consequences. For women who do not regard paid employment as important and who choose to stay home, the status of housewife should not provide a threat to their health status because they have their choice.

Similarly, for women who wish to work and do so, there is no health threat even if they are in multiple roles. This is because they perceive themselves to be in the employment role of their choice. However, if women are forced by circumstances to be employed, this should produce a negative effect on their health status. Therefore choice is the key to health, rather than whether women work or not.

Perceived discretion is also expected to affect behaviour. Women who believe

they have choice and control may also believe they can influence their health by engaging in proactive health behaviours.

To summarize, conflicting conclusions have been reached on the health benefits or otherwise of being in paid employment. Kessler, House and Turner (1987) and Swinburne (1981) argue that the salience of work plays a major role in any experience of morbidity. For men (defined as "the provider" by society), it appears that work is generally perceived to be beneficial, and unemployment detrimental to physical and psychological health.

For women, there is less consensus. Paid employment has been argued to be beneficial primarily because of the associated social contacts and financial benefits. On the other hand it has been argued that work is detrimental because it puts extra pressure on women to cope as worker, mother and partner.

Overriding these postulates however fits the concept of choice. Research has shown that perceptions of choice and control mediate health status. We may expect perceptions of women in New Zealand mediate similarly.

Research Hypotheses

The primary hypothesis tests the assumption that perceived choice or discretion over employment status has a greater effect on health behaviours and status than employment status per se.

Further, it is expected that that women who believe they have their choice of employment status will engage in more proactive health behaviours, report their health as better, and exhibit a higher health status measured by symptom reports, functional status and doctor visits, than women who do not believe they have their choice.

Next, it is suggested that women who value their health and appearance, and employment, will engage in high rates of proactive health behaviours to maintain and improve their health and appearance, and to keep themselves fit and able to work.

Finally, because women have been shown to be attuned to their somatic symptoms, the relationship between their self-reported health and symptom reports is expected to be significant. These self perceptions may play a key role in actual health status.

METHOD

Subjects -

The subjects were 171 women aged between 25-44 years, who were residents of Wanganui. An even spread was obtained across the age range, with 28% aged between 25 and 29 years; a further 28% aged between 30 and 34 years; 22% aged between 35 and 39 years; and 23% aged between 40 and 44 years. The vast majority (89%) were European/ Pakeha; 6% were Maori, and all other ethnic groups made up the remaining 5%. Married (or living as married) women comprised 69% of subjects, 12% were single, and 18% were either separated, divorced or widowed. Seventy-nine percent had children at home.

One quarter of subjects (26%) had not obtained School Certificate; almost another quarter (22%) did have School Certificate; 26% had some tertiary training, but only 9% had graduated from tertiary training; 6% had some university education; but only 3% were university graduates.

The largest percentage of subjects (37%) lived in households with incomes under $25,000; nearly one-third of households (32%) earned between $25,000 and $45,000; 20% of households had incomes between $45,000 and $65,000; and 10% earned more than $65,000. Over half the subjects (54%) had personal incomes under $15,000; another quarter (26%) earned between $15,000 and $25,000; 15% earned between $25,000 and $35,000; and 5% of subjects had personal incomes over $35,000.

Paid employment was undertaken by 63% of subjects and 37% were unemployed. Subjects who worked fulltime (i.e. 36hrs or more) comprised 30% of the total; 12% worked between 21hrs and 35hrs; with 21% in some form of paid employment for up to 20hrs per week. For this study, hours of work are not differentiated, the subjects are categorised as employed or unemployed. Table 1 describes information on the subjects.

Table 1 : Subjects - Demographic Data from 171 Wanganui Women.

	number	percent
Age (years)		
25-29	46	28
30-34	46	28
35-39	36	22
40-44	38	23
Marital Status		
Single	21	12
Married	118	69
Separated/Divorced/Widowed	31	18
Ethnicity		
European/Pakeha	153	89
Maori	10	6
Other	8	5
Child at Home		
Yes	134	79
No	36	21
Educational Qualification		
Less than School Certificate	45	26
School Certificate	37	22
University Entrance	12	7
Some tertiary [nursing etc.]	45	26
Graduate from the above	15	9
Some university	10	6
University graduate	5	3
Household Income		
$0 -$24,999	61	37
$25,000 -$34,999	32	19
$35,000 -$44,999	22	13
$45,000 -$54,999	20	12
$55,000 -$64,999	13	8
$65,000 - +	17	10
Personal Income		
$0 -$14,999	89	54
$15,000 -$24,999	43	26
$25,000 -$34,999	25	15
$35,000 - +	8	5
Employment Type		
SES1 Higher Professional	5	5
2 Secondary Teaching	14	13
3 Banking/Real Estate	45	43
4 Clerical/Sales	28	27
5 Cook/Machinist	6	6
6 Maid/Kitchenhand	7	7
Employment Status		
Paid employment up to -20hrs	35	21
Paid employment 21hrs -35hrs	21	12
Paid employment 36hrs - +	51	30
Unemployed	64	37

SES was defined by the Irving-Elley Female Job Index (Irving & Elley 1977). Most employed women (43%) had SES3 jobs including banking, kindergarten teaching and real estate sales; the next largest group (27%) were in SES4 jobs such as typist and shop assistant; a total of 18% had SES1 and SES2 jobs in management and the professions such as secondary school teaching; and the remaining 13% were employed in SES5 and SES6 jobs such as cleaners and cooks. The sample reflects current employment categories fairly, as women make up 46% of workers in finance, real estate, and business; 44% of workers in retailing and restaurants; and 49% of the community and social services labour force (Department of Labour, 1985).

The subjects comprised four groups : women working in paid employment by choice (45%); women forced to work from financial necessity (19%); women unemployed by choice (17%); and women forced to be unemployed (19%).

Questionnaire

A questionnaire (see Appendix A) was constructed to encompass all variables in the study. For the primary hypothesis it was necessary that items represent women's health behaviours; describe women's health status; and identify their employment status and discretion. Additional data were needed on the importance of employment and health; the value of appearance; the meaning of health; perceived barriers to health care; and alternative sources of health advice. An examination of previous studies yielded bases for the questionnaire.

Health Behaviours

A study by Langlie (1977) using the Health Belief Model [HBM] is used as the major framework for this measure. Of Langlie's 11 scales, 3 were excluded, and 2 were combined into one item. The exclusions were; Driving Behaviour; Pedestrian Behaviour; and Seat Belt Use. Because this study focusses on employment status, the items concerning driving/pedestrian behaviours were

considered irrelevant. The items (Screening Exams, and Medical Checkups), itemised separately in the Langlie research, were combined under the umbrella term " Screening /Checkups". In New Zealand, this term adequately covers the concepts of both regular checks of blood pressure and weight for example, as well as examinations such as cervical smear tests which women may undergo on a regular basis. One item (Immunisations) used tuberculosis, which is no longer a major health concern in this country. It was changed to tetanus, (used by Ajzen and Timko, 1986), to make it more relevant for New Zealand conditions.

The remaining Langlie scales incorporated into this measure included items on: Smoking; Personal Hygiene; Screening/Checkups; Dental Care; Immunisations; Exercise; and Nutrition. These were supplemented by additional items from Ajzen and Timko (1986), and Seeman and Seeman (1983), including further questions on hygiene (often habitual behaviours taught and learned from childhood); nutrition; examinations particularly relevant to women; and protective behaviours not already listed. The heavy emphasis on nutrition is warranted because of the current importance attached to the impact of diet on health generally.

Ajzen and Timko (1986) in a study on the correspondence between health attitudes and behaviour constructed a measure containing 24 common health behaviours which is similar to the Langlie measure. The other research from which health behaviour items have been obtained was conducted by Seeman and Seeman (1983), who devised a measure to capture three aspects of health behaviour: preventive care, health knowledge, and health status.

Because this measure is a composite one, there are no measures of its reliability or validity. However, the Health Belief Scales on which Langlie (1977) based her work and from which this measure is primarily drawn, show internal reliablities over .70. For this study validity is a major concern and this measure is inclusive, and comprehensive, and so may be expected to have face

and content validity.

The final composite health behaviour measure had 20 items pertinent to women's health which may be condensed into the following headings: Hygiene; Nutrition; Exercise; and other behaviours such as regular checkups. These were rated on a 5-point scale, as to how often the subject would perform the behaviours, from "always", to "never".

Health Status

To capture health status, the following factors were included;- symptoms; a self-rating of health; illness, both chronic and acute; injury incidence; functional status (activity restriction); and the number of visits to a doctor.

Symptoms: The Cohen-Hoberman Inventory of Physical Symptoms (CHIPS; Cohen and Hoberman, 1983), was utilised as a measure of physical symptoms because it was short, precise, and covered relevant health items. A slight modification suggested to earlier researchers saw 33 of the original 39 items used (Laird, 1989). Cohen and Hoberman report CHIPS as having an internal reliability of .88, and significant correlations (.22 and .29) were found between college samples and the use of Student Health Facilities. For this study subjects were requested to indicate the degree to which any symptoms experienced in the previous two months had bothered or disturbed them. This time frame had been used by Seeman and Seeman, 1983). The 5-point scale ranged from "not at all" to "extremely" disturbing.

Self-rated Health: To obtain self-rated health status, two items from Laird and Chamberlain's (1990) survey were used to give both relative and absolute measures of subjective health status. Both items were rated on a 7-point scale ranging from "terrible" to "excellent". Laird (1989) showed these items correlated significantly with somatic symptoms, functional limitation, and chronic illness.

Chronic Illness: The types of chronic illness were drawn from the Rapuora survey (Murchie, 1984). Subjects were asked to circle the condition if they had experienced: asthma, arthritis, bronchitis, cancer, depression, diabetes, gallstones, gout, heart trouble, high blood pressure, or rheumatic pains. If necessary, they were requested to list any other chronic illnesses. Chronic illness was described as being a recurring, or ongoing health problem for six months or more.

Acute Illness: Subjects were requested to list in their own words any acute illness experienced during the previous two months (from Seeman and Seeman, 1983). Illnesses noted here were in contrast to any chronic condition. Individuals may experience an illness only briefly but if it is acute, it may still impact on their functioning.

Injury/Accident: Subjects were requested to list in their own words any injury or accident experienced during the previous two months (time frame from Seeman and Seeman, 1983).

Functional Status: To measure this aspect of health subjects were asked how often during the previous two months they had experienced: days of restricted activity due to illness or injury, days in bed because of ill-health, and days of chronic illness(es). These items were adapted from Verbrugge (1983).

Doctor Visits: Subjects were asked to note how many visits to a doctor they had made for their own health during the past year (adapted from Verbrugge, 1983). Subjects with perceptions of control may be expected to visit a doctor less often because they believe they can self-care. Similarly, subjects without such perceptions may visit a doctor more because they feel powerless.

Meaning and Value of Health and Appearance

Colantonio's (1988) wording was used. This asked..."What does the expression being healthy mean to you?" Women responded in their own words.

To measure the value placed on health, subjects were asked:
"How important is your health, to you personally?" Subjects rated on a 5-point scale, from "not at all important" to "very important". To measure the value placed on appearance, subjects were asked: "How important is it to you to: be attractive to the opposite sex"; "...be well dressed"; "...have a good complexion"; and "...have good posture?" Again, responses were rated on a 5-point scale from "not at all important" to "very important". These items were adapted from Hayes and Ross (1987).

Health barriers

This item requested subjects to describe in their own words what sort of thing would *stop* them from seeking health care. This item has been shown to currently be the most salient factor of the Health Belief Model. Subjects who believe they have some control over life factors may perceive fewer barriers to health than subjects who believe they are powerless.

Sources of Alternative Health Advice

This item asked: "From whom would you seek health advice or assistance, other than a doctor?" Again, subjects responded in their own words, and were not constrained by a set check list.

Demographic Data

Demographic data from the sample included age, ethnicity, marital status, whether the subject had children living at home, personal and household income, and education level attained. These data were obtained for descriptive purposes only as ethnicity, marital and family status, and socio-economic status were not specifically examined.

Employment Data

To measure the value placed on being in paid employment, subjects were asked, "How important is having paid work to you personally?" Responses

were rated on a 5-point scale, from "not at all important", to "very important".

Finally, subjects were asked whether they were in paid employment, the hours they worked, and the type of job they had. To identify employment discretion respondents were asked whether they were (a) working from choice or from financial necessity, or (b) not working from choice or because no jobs were available.

Procedure

To obtain an adequate numbers of subjects for each condition, agencies likely to offer prospective subjects were visited. These included the local New Zealand Employment office, Plunket rooms, kindergartens and playcentres, varied workplaces, and the local Women's Centre. An effort was made to include a wide range of socio-economic areas in the targetting of Plunket rooms and Kindergartens. In addition a variety of workplaces were visited in order to obtain a reasonable spread of occupations.

Any woman between the ages of 25 years and 44 years who agreed to assist, was included. Because there was no attempt to generalise to the New Zealand female population, a randomised sample was not required. However, it was necessary to obtain sufficient numbers of subjects in each condition of the study, and a minimum number of 100 subjects was considered desirable.

Questionnaires were handed out where possible by the researcher. Women who agreed to participate were requested to complete and return their questionnaires as soon as possible. A summary of results was offered to any subjects interested in the outcome of the study. To encourage respondents and to facilitate returns a stamped addressed envelope was provided.

Over the course of six weeks from early May 1991 to mid June 1991, the targetted areas were visited and 245 questionnaires were taken. From this

number, 172 were completed and returned by early July 1991 which was the cut-off point. This represented a return rate of 70%. One questionnaire was unusable because the subject was outside the required age. Data were therefore analysed from 171 respondents.

RESULTS

Overview

The first part of this section addresses health variables including the meaning and value of health, the value of the more intangible measure described here as "appearance", perceived barriers to health care, and other sources of health advice. Response frequencies and percentages are noted for each of these variables.

The second part of this section presents descriptive data on the components of physical health, health behaviours and health status. Inter-correlations between health variables are tabulated.

The final part of this section presents data on employment and health. Means and standard deviations of employment status and perceived employment discretion, and health behaviours and health status are tabulated. Results from a two-way analysis of variance are presented.

Correlations between the value of health and paid employment, and health behaviours and health status are described.

General Health Variables

Health Value

To gauge the salience of health subjects rated on a five- point scale how important their own health was to them. Numbers and percentages of these ratings are presented in Table 2.

Table 2. Numbers and percentages of personal health importance ratings (N =171).

Importance Rating	Number	Percentage
not at all	3	2
not very	3	2
somewhat	13	8
quite	38	22
very	114	67

Over two-thirds of respondents (67%) considered their health to be "very" important. Only 4% regarded their health as "not at all" or "not very" important. These results illustrate that for this sample their health is extremely salient. We may expect this degree of concern about health to impact on health-related behaviours. This possibility is explored in the second section.

Meaning of health

Respondents were asked to describe in their own words, what the expression "being healthy" meant to them. All suggested meanings were categorised by the researcher according to Colantonio's (1988) survey, and came within the parameters of Taylor's (1990) postulate. Social and environmental dimension responses included being fit and able to undertake daily tasks; biological and medical responses included not being sick and not needing to visit the doctor; and responses falling within a psychological dimension included feeling well and happy (affective/emotional), and belief in the salience of healthy behaviours and healthy appearance (cognitive/perceptual). Responses are shown in Table 3, and total more than 100% because of multiple replies.

Table 3. Numbers and percentages of subjects responding in health meaning categories.

	Number	Percent
Feeling well and happy	95	56
Fit, and able to carry out tasks	74	43
Not sick	43	25
Healthy behaviours	37	22
Looking well, weight, complexion	17	10
All other -including balanced life	5	3

Over half the women (56%) defined health in affective terms -"feeling well", so mirroring Kristiansen's (1989) thesis that women tend to regard health in affective rather than cognitive styles. Nearly half (43%) offered socio-cultural terms relating to being "fit" and able to work, which may reflect the salience of women's role as care-givers, and/or the necessity to be able to undertake paid employment.

One quarter of women suggested a medical definition (not sick), which is possibly less than expected (cf. Woods et al. 1988) and suggests that New Zealand women may orient less towards illness and more towards wellness. This postulate is reinforced by the number of respondents (22%) who offered meanings linked with proactive health behaviours such as not smoking, eating sensibly and regularly, and having enough sleep. These behaviours may be added to the perceptual and appearance definitions such as looking well and having a good complexion, which were offered by 10% of respondents. Thus 32% of meanings came within the cognitive psychological dimension.

In total (88%) of health definitions were psychological with affective responses the most frequently cited. Healthy behaviours were suggested by nearly one-quarter of respondents, but fewer defined health in appearance terms. Perhaps women consider looks to be less related to health, but are still interested in looking good for other reasons.

Appearance Value

Hayes and Ross (1987) argue this thesis, noting that appearance is valued by women in an alternative context, and that healthy behaviours may be undertaken for cosmetic purposes (i.e. to look good) rather than for health per se. To test this postulate, respondents rated four items described here as appearance value. Table 4 shows the numbers of subjects who rated these items as being "very important" to them, and the percentage of those numbers within the total sample.

Table 4. Numbers and percentages of subjects rating each appearance value as "very important".

Item	Number	Percent
Have good complexion	68	40
Have good posture	64	37
Be well dressed	56	33
Be attractive to opposite sex	34	20

The item which may be considered to be more directly health related, (i.e. a good complexion) was ranked as "very important" by 40% of respondents. What may be called "sex appeal" was considered "very important" by only half as many women. Around one third of respondents considered having a good posture (37%) and being well dressed (33%) as "very important". These results may appear to contradict the low rating (10%) of appearance factors when the meaning of health was defined in Table 3. However, if we accept that women care strongly about their appearance for reasons other than being healthy, it is not inconsistent.

To obtain an average score of appearance value, all ratings on each of the four factors were combined, and divided by four (not tabled). From this calculation it was found that 20 women (12%) rated appearance as being "very" important to them, and another 12% rated appearance as being "not at all" or "not very" important.

Barriers to health care

Subjects were asked to identify in their own words what sort of things would stop them from seeking health care. Table 5 lists response numbers and percentages. Again, because subjects responded in their own words, there are multiple definitions and percentages do not equal 100%.

Table 5. Numbers and percentages of subjects citing each barrier to health care.

Barrier	Number	Percent
Nothing would stop	35	21
Cost	98	57
Doctor's attitude	20	12
Time	11	6
Lack of faith in the system	11	6
Embarrassment	6	4
Fear	4	2
Other- incl. think can self-care	11	6

In line with expectations formulated because of recent government policies, the most frequently cited barrier was cost. Over half the women (57%) said cost would be a barrier to obtaining health care, but just over one-fifth (21%) stated that nothing would stop them if they felt assistance was needed. Financial constraints may have been expected to impact more on a relatively modest income sample, (see Table 1), but possibly women will seek health care if they consider it necessary because of the high value they place on good health (see Table 2).

The next largest group (12%) cited their doctor's attitude as a barrier, and allied to that a further 6% noted that they had a lack of faith and confidence in the health system generally. Time was a factor for only 6% of women which may indicate either that time off work for health visits is not a problem for working women, or that a small city such as Wanganui has a better spread of health centres which are easily accessible. Another factor may be the increasing

trend to group practices which may have reduced waiting time, and mean that there is always a doctor available when needed.

Six per cent of respondents would not seek health care for other reasons - primarily if they thought that they may be able to treat themselves successfully. Subjects who perceive they have some degree of control over their health may be expected to attempt self-care, as may employed subjects. It has been suggested that this is a result of time constraints for working women (Zadoroznyj & Svarstad, 1990), and this may be a factor for these respondents.

Alternate Sources of Health Advice

Finally, in this section the women were asked to complete in their own words from whom they would seek health advice or assistance, other than a doctor. Table 6 lists the sources offered by numbers of women, and the percentages. Note that percentages total more than 100% because of multiple replies.

Table 6. Numbers and percentages of subjects reporting sources of alternative health advice.

Source	Number	Percent
No-one else	10	6
Naturopath/homeopath	60	35
Pharmacist	53	31
Family/friends	30	18
Nurse or dentist	24	14
Chiropractor,osteopath, physio	24	14
Colour and alternative therapies	14	8
Counsellor/psychologist/psychiatrist	5	3
All other -incl. books	20	12

Ten women (6%) stated categorically that they would seek health advice only from a doctor and would not approach anyone else. Of those respondents offering alternatives, it is surprising to see that naturopaths and homeopaths top the list (35%) which is 4% higher than pharmacists. There may be two possible reasons for this result. Firstly, naturopaths and homeopaths normally include

medication in the cost of a consultation, so avoiding prescription charges; and secondly, there has been an increasing acceptance of homeopathic remedies, and a rejection of what many women perceive to be automatic drug prescription by some general practitioners.

This result is still surprising however, given the low response rate for holistic health meanings (see Table 3). Perhaps women are driven away from pharmacists by prescription costs, rather than being drawn to naturopaths because of a belief in their efficacy.

There are a cluster of other advice sources suggested by a relatively few subjects. The third highest source (18%) is family and friends used by women as resource networks, followed by a practice or community nurse and dentist (14%), and those health practitioners specialising in joints and muscles (14%). Alternative therapists including colour therapist, iridologist, and reflexologist were sources of health advice that 8% of subjects would use, but only 3% would go to a counsellor, a psychologist, or a psychiatrist. Had the focus of this inquiry been directed at mental health, this may have been a larger proportion. However, there may still be some stigma attached to seeking such assistance.

Other sources (primarily from books) were offered by 12% of women who may have used them to self-diagnose their illness, or alternatively to learn preventive measures to maintain their health. Although the implicit tenor of this question has perhaps an illness orientation, this is not necessarily the only reason why people seek out health advice. Those individuals who believe they can control their health by self-care (cf. Table 5) are more likely to inform themselves through books and would fall into this 12% of responses.

Health Behaviours

To measure health behaviours a five-point rating scale from "always" to

"never" gave the frequency of undertaking each of the 20 behaviours. Table 7 shows means and standard deviations for each behaviour ranked in order.

Table 7. Means and Standard Deviations for Individual Health Behaviours.

Health Behaviour	Mean	SD
Wash hands after toilet	4.62	0.80
Avoid smoking 10+ cigarettes a day *	4.35	1.33
Brush teeth at least twice daily	4.17	1.21
Wash hands before touching food	4.05	1.06
Adequate reading light	3.95	1.00
Eat a balanced diet	3.84	1.03
Eat breakfast	3.81	1.43
Avoid eating fried food *	3.72	0.69
Avoid sharing cup, towel with another *	3.70	1.16
Brush Hair	3.48	1.46
Watch weight	3.35	1.31
Avoid salt	3.02	1.30
Six-month check-up with dentist	2.89	1.62
Annual check-up with doctor	2.68	1.56
Make time for daily relaxation	2.67	1.17
Get periodic anti-tetanus booster	2.31	1.56
Examine breasts for lumps monthly	2.28	1.19
Avoid caffeine	2.11	1.26
Take vitamin supplements	2.05	1.27
Go to exercise classes	1.95	1.26

Items marked * are rephrased and have been recoded to give ratings in the same proactive direction for all behaviours.

Mean scores in Table 7 show that hygiene factors: handwashing, teethbrushing and ensuring adequate reading light, cluster in the top quarter of proactive health behaviours, but within that group avoiding smoking more than 10 cigarettes a day ranks second. Smoking behaviour results (not tabled) show 130 women [76%] as "always" avoiding smoking more than 10 cigarettes a day.

Nutrition factors such as eating a balanced diet, eating breakfast and avoiding fried foods also rank highly. Nutrition factors have been identified as being highly salient to good health (Sobal et al. 1985). The high ranking of such

factors may mean that these subjects are aware of this importance, and have taken steps to monitor and balance their meals.

The rate of engaging in exercise classes in aerobics, yoga or gym, and the taking vitamin supplements produced the lowest mean scores. Cost may be a major factor in these behaviours. When the actual numbers "never" performing these behaviours are examined over half the women (52%) never attended exercise classes, and 44% never took vitamin supplements (not tabled). It may be argued however for the vitamin supplement question, that because women ranked a balanced diet highly (68% saying they regularly or always ate such a diet), taking vitamins could be considered unncessary.

Daily relaxation was accorded low priority for these subjects, perhaps because the majority were working and time may be a factor when there are multiple role demands. Time and cost may also be a factor in the low reports of checkups whether dental or medical. However, affect such as fear may also be a barrier to engaging in these behaviours, and also in the low reporting of regular breast self-examination.

In sum, the behaviours ranked highest overall are: hygiene, probably driven by early teaching; avoiding smoking, driven by social norms, financial cost, and fear of a serious morbidity such as lung cancer; and nutrition factors driven by a desire to maintain health and conform to an accepted body image. All of these behaviours see subjects ranking the same variables identified as most salient to good health by doctors surveyed (Sobal et al. 1985), and may be considered as positive efforts by women to achieve and maintain wellness.

Health Status

Descriptive analyses of the separate health status factors identified in this study are now tabulated. Following these descriptions, intercorrelations between health variables are presented.

Symptom Reports

Symptoms experienced during the preceding two months as listed in CHIPS (Cohen & Hoberman, 1983) are shown in Table 8. Frequency of occurrence is described by numbers and percentages of women reporting each symptom, with mean severity and standard deviation scores also shown for each symptom. These are presented in order of frequency percentages.

Table 8. Frequency and severity of symptoms reported by subjects.

Symptom	**Frequency**			
Severity				
	Number	Percent	Mean	SD
Feeling low in energy	130	76	1.39	1.30
Sleep problems	124	73	1.36	1.32
Headache	120	70	1.14	1.04
Back pain	112	65	1.31	1.28
Constant fatigue	111	65	1.16	1.16
Cough or cold	100	58	.96	1.03
Weight change	99	57	1.26	1.56
Stuffy nose/head	93	54	.91	1.03
Muscle tension	89	51	.81	.97
Stomach pain/cramps	75	43	.66	.96
Bruises	69	40	.59	.90
Acne	62	35	.51	.82
Heart pounding	58	33	.54	.91
Constipation	56	33	.52	.90
Numbness/tingling	55	32	.58	.98
Acid stomach/indigestion	54	31	.44	.79
Hot or cold spells	54	31	.52	.96
Weak all over	54	31	.48	.88
Shortness of breath	47	27	.38	.70
Muscle cramps	47	27	.37	.72
Dizziness	46	26	.40	.80
Poor appetite	39	22	.37	.81
Blurred vision	38	21	.35	.77
Pains in heart/chest	42	24	.36	.75
Severe aches and pains	42	24	.45	.92
Nausea and/or vomiting	40	23	.36	.76
Faintness	39	23	.30	.66
Migraine headache	38	22	.32	.72
Pulled/strained muscle(s)	38	22	.33	.75
Diarrhoea	35	20	.30	.71
Hands trembling	30	17	.25	.65
Pull/strained ligament(s)	19	11	.18	.63
Nosebleed	12	6	.09	.44

Table 8 shows that three-quarters of the women (76%) reported "feeling low in energy", and almost as many reported "sleep problems" (73%) and "headaches" (70%). Both of these conditions are symptoms of depression, but may also occur if women are endeavouring to fulfil multiple roles. Symptoms reported least were "nosebleeds" [6%], and "pulled/strained ligaments" [11%]. These are often symptomatic of contact sports which women are not likely to engage in and this may explain the low rate of reporting.

Symptom severity reports show that the two symptoms listed most frequently (low in energy, and sleep problems) also rank as being the most disturbing with mean severity scores of 1.39 and 1.36. In fact, Table 8 shows that frequency and severity items match within the first third of both table contents.

Thus, those symptoms experienced most frequently are also the ones which the women ranked as most disturbing, and there is general agreement among most symptoms, with only "severe aches and pains" in the last third of the table ranking higher in severity than frequency. Because both types of symptom reports parallel each other so closely, the frequency measure was discarded. For further analysis, a global index of symptom severity was obtained by summing all reported symptoms and the degree to which subjects found them disturbing.

Chronic Illness

Reports found that most subjects were free of chronic illness, with 107 [63%] women reporting none. However the 64 women with chronic illness reported multiple conditions with a total of 94 conditions. Table 9 shows the numbers of chronic illnesses reported, the percentage of chronic illness subjects with each condition, and illness reports as a percentage of the total sample. Note that multiple responses give totals more than 100%.

Table 9. Frequencies and percentages of chronic illness reports. (N =64)

Illness	Number	% of illness group	% of total sample
Depression	22	34	13
Asthma	13	20	8
High blood pressure	11	17	6
Bronchitis	6	9	4
Arthritis	4	6	2
Rheumatic pain	4	6	2
Gynaecological	4	6	2
Heart disease	4	6	2
All other	26	41	15

Table 9 highlights the fact that women who report having a chronic condition, frequently report multiple conditions. This may be expected to show up in self-rated health reports with more than the expected level of "poor" to terrible" health, given the age of respondents. Depression was the chronic illness most frequently reported, with 34% of women who reported a chronic condition, listing depression. This mirrors the statistics on female mental health admissions (Bunnell, 1987) where depressive illness was an increasing reason for hospitalisation.

Fewer women reported asthma (20%), and high blood pressure (17%), than may have been expected from the general population. New Zealand has an high incidence of chronic asthma which was expected to feature more frequently than the 20% of reports. However, this may be due to the age group surveyed. Bunnell (1987) cited hospital admission statistics for 1983 which show that under 15 years and over 65 years subjects were most frequently hospitalised for respiratory system diseases, of which asthma is a major one. The same source shows similar age factors for high blood pressure, with few admissions up to age 44 years, and a dramatic upsurge from 45 years onwards.

The 41% of all other illnesses reported cover a wide range of chronic conditions including hernia, duodenal ulcer, gout, Menieres disease, colitis,

allergies, and diabetes, to name a few. However, these were each reported by only one or two respondents. Some of those mentioned may be exacerbated by psychological conditions such as depression, and the associated decrease in physical immune responsiveness.

Depression therefore may be expected to exhibit in the physical symptoms which usually accompany it, i.e.sleep and eating problems, and fatigue. This proved to be so. Modest but significant correlations were found between depression and sleep problems ($r = .363, p < .001$); constant fatigue ($r = .342, p < .001$); and feeling low in energy ($r = .286, p < .001$). Because frequencies of any other chronic illnesses were low, and the symptom reports captured depression, chronic illness is not analysed further.

Current acute illness and injury

Frequencies of current acute illnesses were coded for influenza; sinusitis; tonsilitis; pain (usually back and menstrual); gynaecological; stomach and gastric; and all other, which included allergies and bowel disorders. Table 10 shows that only 29 women (17%) reported having any illness during the previous two months. Of the women who responded in the affirmative, the most frequent illnesses reported were influenza (38%), and pain (21%). The 29 women reported 31 acute illnesses.

Frequencies of current injuries were coded for muscular (e.g. strain); joints (e.g. sprain); cuts and abrasions; and burns. No other injuries outside these were offered by subjects. Table 10 shows that only 27 women (16%) reported any injury during the previous two months. The injuries most frequently reported by these women were cuts and abrasions (44%), and muscle strains (30%). The 27 women reported 28 injuries. Table 10 illustrates acute illness and injury frequencies, and percentages both within the group reporting these conditions, and also as a percentage of the total sample.

Table 10. Frequencies and percentages of acute illness (N =29), and injury (N =27) during the previous two months.

Acute Illness	Number	% of illness group	% of total sample
Influenza	11	36	6
Pain, back/menstrual	6	21	4
Sinusitis	3	10	2
Tonsilitis	2	7	1
Gynaecological	2	7	1
Stomach/gastric	1	1	1
All other	6	21	4
Injury			
Cuts and abrasions	12	44	7
Muscle strain	8	30	5
Joint sprain	5	18	3
Burns	3	11	2

Because the relative numbers of women reporting illness and injury were few (29 and 27 from 171 subjects) and those noted were minor, these factors were not used in further analysis.

Functional status

Functional status over the previous two months was defined by three components: days of restricted activity due to illness or injury; days in bed because of illness; and days when chronic illness was experienced. Table 11 presents each of these components.

Table 11. Distributions of functional limitation experienced during the previous two months. (N =171)

	Functional Limitation					
	Acute Illness/Injury		Bed days		Chronic Illness	
Days restricted	**No**	**%**	**No**	**%**	**No**	**%**
0	121	71	143	84	148	87
1 - 3	27	16	17	9	6	3
4 - 9	14	8	8	5	4	2
10-30	9	5	3	2	9	5
31-60	-	-	-	-	4	2

Table 11 shows that the majority of subjects experienced no restricted activity during the time period measured. The most commonly reported limitation was acute illness or injury days (totalling 29%), although over half of these (16%) were short term between one and three days duration. Bed days were experienced by a total of 16% of respondents; with a total 12% reporting chronic illness.

Most subjects reporting some functional limitation indicated that these were short term, with between one and three restricted days the most common. Given the relatively minor nature of reports in Table 10, the low percentages are expected. Overall the three aspects of functional status measured, nearly three-quarters of respondents had less than one restricted day per month (not tabled), with days of chronic illness experienced the least. Bed days and chronic days do not rate above 10% for any grouping. Chronic illness was experienced between 30 and 60 days by four women. This means that during the two month timeframe, their chronic illnesses bothered them virtually every day. However, no illness or bed days were reported for more than 30 days.

Self-rated health

Self-rated health was measured by rating the description which described the subject best on a seven point scale, from "terrible" to "excellent". Firstly, health was rated against someone the same age, and secondly against a person in

excellent health. The ratings produced a significant positive correlation (r =.90, p <.001) and were therefore combined for further analyses, giving one score. Table 12 shows these ratings.

Table 12. Frequencies and percentages of subjects self-rated health (N =171)

Rating	Number	Percent
Terrible/Very poor	3	2
Poor	18	11
Fair	31	18
Good	42	24
Very good	50	29
Excellent	27	16

Table 12 shows perhaps surprisingly, that nearly one-third (31%) of this sample of young adult women rated their health as only "fair" or worse. It may be surmised that frequent reports of low energy, sleep problems, and constant fatigue which are also ranked as most disturbing, combine to give these subjects an overall perception of poor health status. If subjects also feel that they are forced to carry on in spite of these symptoms, an internal perception of only adequate functioning is perhaps more understandable.

Another one-quarter of respondents (24%) rated their health as "good", with a similar percentage (29%) rating "very good", and another one in six (16%) regarding their health as "execllent".

Doctor visits

This item may be considered from the viewpoint of health, as in preventive visits; or illness, as in treatment visits. Table 13 shows frequencies and percentages of doctor visits.

Table 13. Frequencies and percentages of doctor visits for subjects' own health during the previous year. (N =171)

Visits	Number	Percent
0	31	18
1	42	25
2	29	17
3	17	10
4	13	8
5 - 9	25	14
10- +	14	8

Nearly 20% of respondents had not made a visit to a doctor for their own health during the previous year. One quarter had made one visit. Within these figures may be included healthy women having annual health screens or checks. Another quarter (29%) had visited their doctor two or three times. Considering subjects age range a reasonably high percentage of women (22%), had visited the doctor between four and nine times during the previous year. It may be assumed that those women with chronic illnesses feature within these figures. Only 8% had visited the doctor nearly once a month on average during the year. A scrutiny of individual responses shows that these women had noted that the visits were for routine pregnancy checks. Such visits would not be described as "illness", but rather prevention.

Inter-correlations of health variables.

After obtaining descriptive data on the health-related variables noted above, inter-correlations between variables were performed. To obtain an health behaviour score, all behaviours were added and divided by the number of behaviours. Correlations (not tabled) between symptoms and the three separate factors of functional status (as shown in Table 11) produced similar relationship levels. Thus symptoms and illness/injury days ($r = .37$, $p < .001$); symptoms and bed days ($r = .44$, $p < .001$); and symptoms and chronic days ($r = .42$, $p < .001$) suggested the possiblity of overlap between restrictions. A subject who lists chronic illness days may also note the same restriction as bed

days. Because of overlap, it was considered more useful to provide one functional status figure for analysis. To obtain a total score for disability, all three types of activity restriction days (see Table 11) were combined and then averaged. Table 14 shows correlations, means and standard deviations of these health variables.

Table 14. Correlations, means and standard deviations of doctor visits, health behaviours, self-rated health, symptom severity, and functional status.

Variable	Doctor Visit	Health Behaviour	Self-rated Health	Symptom Severity	Mean	SD
Doctor					3.22	3.82
Behaviour	.02				3.24	.51
Self-rated	-.27**	.34**			5.35	1.23
Symptoms	.32**	-.21*	-.62**		19.24	14.35
Function	.23*	.05	-.39**	.51**	4.08	10.74

p. <.01* p. <.001** (One-tailed)

As with previous research (e.g. Laird, 1990) a moderately strong correlation was found between self-rated health and symptoms (r= .62, p <.001). A modest correlation was found between self-rated health and functional status (r= .39, p <.001); and between health behaviours (r =.34, p <.001). The stronger correlation between self-rated health and symptoms tends to confirm that the women were attuned to their health and to somatic changes in their physiology.

Doctor visits produced a significant relationship (r =.32, p <.001) with symptoms, which may be expected if most individuals visit a doctor because they are ill. A more modest relationship between doctor visits and functional status (r =.23, p <.01), was found, pointing again to illness driving women to seek advice because of illness necessitating restricted activity days. No relationship was found between doctor visits and health behaviours. From these results we may argue that most subjects visited a doctor primarily because they were ill, and not to obtain preventive care.

The final analysis sought to investigate whether there was a relationship between health, employment and appearance value, and the rate of engaging in proactive health behaviours. It was expected that if health was regarded as being very important, the rate of engaging in healthy behaviours would be higher, and women who valued their health highly would avoid smoking, perform a high standard of hygiene, and be vigilant in monitoring nutrition. To test this postulate health value was correlated with the average health behaviour score. As expected a modest but significant ($r = .376$, $p < .001$) relationship was found.

When employment value was correlated with the average health behaviour score, there was no significant relationship ($r = .01$, n.s.). It may be supposed that subjects did not engage in proactive health behaviours in order to remain fit for work.

To test the relationship between appearance value and health behaviours, the appearance value score was correlated with the average health behaviour score. Results produced a modest but significant ($r = .317$, $p < .001$) correlation. This tends to suggest that women may engage in healthy behaviours for reasons of appearance, as well as to maintain their health.

Health and Employment

The final section presents data on employment factors which are then analysed for relationships with the health variables. The descriptive data on employment-related variables contained in Table 1, show that 63% of respondents were in some form of paid employment, and nearly half of them worked full-time. Thirty-seven per cent of respondents were not in paid employment and will be described as unemployed for this thesis. To identify the discretion factor, working women were asked whether they were in paid employment by choice, or because they had to work to support their family; unemployed women were asked whether they did not want to work, or whether they could not get a job.

This separated women into two categories for analysis of employment discretion: "choice" or "forced"

To summarize the groups for this section: 45% of subjects worked from choice and 19% worked from financial necessity. Seventeen per cent were unemployed by choice, but slightly more (19%) were forced to be unemployed because they could not obtain work.

Therefore there is a group of 104 women (62%) who are in the condition of their choice, whether working or not; and another 64 women (38%) who are in a forced condition, working because of financial reasons, or forced to be unemployed. Table 15 presents means and standard deviations of each health variable by employment status and discretion.

Table 15. Means and standard deviations for health variables, by employment status and discretion. (N =168)

	Health Behaviours		Self-rated Health		Symptom Severity		Doctor Visits	
	Emp.	Unemp.	Emp.	Unemp.	Emp.	Unemp.	Emp.	Unemp.
Discretion Chosen:								
Mean	3.37	3.36	5.62	5.43	14.86	17.31	3.41	4.52
SD	.48	.48	1.10	1.18	10.18	15.23	3.95	5.11
N	73	28	75	29	74	26	75	29
Discretion Forced:								
Mean	3.18	2.96	5.20	4.67	27.60	25.52	2.88	3.50
SD	.45	.50	1.29	1.14	16.89	16.03	2.69	9.07
N	32	26	32	32	30	29	32	32

Symptom severity means as illustrated in Table 16, show that women in a forced condition experienced nearly double the symptoms in comparison to those women in the condition of their choice. In fact women who were in forced unemployment show lower means for health behaviours, self-reported health and doctor visits. The symptoms reported by this group are only exceeded by women employed because of financial necessity.

In order to test the hypothesis that perceived discretion has more impact on physical health than employment status, a 2 X 2 analysis of variance with factors of discretion and employment status was conducted on each of the dependent variables. There were no significant interactions between employment status and discretion on any health variable. Similarly for employment status, there were no significant differences between employed and unemployed women. However there were significant differences for discretion, on all health variables except doctor visits ($F (1, 150) = .67$, ns).

Women in a forced condition had significantly lower health behaviours ($F (1, 150) = 13.499$, $p < .001$); lower self-rated health ($F (1, 150) = 9.211$, $p < .01$); and more symptoms ($F (1, 150) = 21.926$, $p < .001$), than women in a chosen condition.

Summary

Firstly, the meaning of health was described in afffective terms by the majority of respondents, and health was valued as very important by over two-thirds. Cost was offered as the barrier to obtaining health care by more than half the women. Other than a doctor, naturopaths and homeopaths were most likely to be asked for health advice, closely followed by pharmacists.

Intercorrelations between health variables were shown to be significant with the exception of the relationship between behaviours and overall functional status,

and behaviours and doctor visits. It may be expected that proactive health behaviours would not correlate with rate of doctor visits; but it is rather more surprising that proactive health behaviours did not produce a significant relationship with functional status.

Means presented in Table 15 highlighted the differences between women operating in a forced condition and women operating in the condition of their choice, with the latter reporting higher health status.

Analyses of variance strongly supported the primary hypotheses: perceived employment discretion had an effect on health whereas employment status did not; and further, women who perceived they had such discretion engaged in more proactive health behaviours and reported higher health status than women in a forced condition.

The secondary hypotheses: that women who value their health and their appearance and regard paid employment as desirable, will engage in high rates of proactive health behaviours received partial confirmation. Health and appearance value both related significantly to health behaviours, but employment value did not.

Finally, self-rated health correlated significantly with health status as measured by symptom reports, with evidence of a strong relationship. This concurred with the Langer (1983) postulate that self-ratings may be a stronger predictor of health than measures made by medical or outside agencies.

DISCUSSION

The primary hypotheses of the present study were supported with the internal factor of choice perception producing significant differences in women's health behaviours, in self-reported health, and in symptom severity. However doctor visit rates were not significantly affected by choice. The external factor of employment status produced no significant effect on these variables, confirming the postulate that employment status per se is not as salient as discretion.

The effects of employment on women's health status have been studied in many contexts with conflicting conclusions. Some have suggested that employment is beneficial for women (Verbrugge, 1983) because of the associated sense of identity and social support. Others (Rosenfield, 1989) have maintained that employment may not operate positively if there is role overload and high demands.

Skelton and Pennebaker (1982) note that we "...report more intense physical symptoms and exhibit symptomatic behaviour when information from the external environment is either minimal (i.e. nonnovel, redundant, boring) or overwhelming (i.e. blurs into an undifferentiated background because there is more than can be dealt with") (p. 104). This provides a logical rationale for the negative health effects produced by either too much work as experienced in women's multiple roles, or by not enough work as experienced in involuntary unemployment.

However Barnett and Baruch (1985) argue that is it is the quality of the experience of work and/or family roles rather than the quantity which mediates health. This perceptual mediation is echoed by Linn, Linn and Jensen (1984) who conclude that it is the individual's response to the event, rather than the event per se which is the salient factor in determining health status. Both these studies focussed on psychological health, and Rosenfield (1989) notes wide

acceptance for the position that greater psychological distress is experienced when individuals perceive themselves unable to act on and affect their social world.

Results from the present study suggest that physical health is also equally affected by such perceptions. Women in a forced condition without perceived discretion over their employment status reported symptoms as more disturbing, rated their health lower, and engaged in lower rates of proactive health behaviours than women who were in the employment status of their choice. The group reporting most symptommatology was that comprising women who were forced to work to support their families. Their mean symptom rate was almost double that of women who worked from choice. Therefore the factor of paid employment in itself does not appear to be salient. Let us examine this finding further.

If being in paid employment induces lower health as Rosenfield (1989) suggests, then employed groups may be expected to engage in low rates of health behaviours, rate their health lower and report more disturbing symptoms. Yet women who worked from choice undertook a higher rate of proactive health behaviours, rated their health the highest, and had the lowest symptom reports of any other group.

If unemployment leads to lower health as argued by O'Brien and Kabanoff (1979) the women who were not in paid employment may be expected to report few health behaviours, poorer health and high symptoms. Yet women who chose not to work engaged in high rates of health behaviours, rated their health highly, and reported symptoms as being far less disturbing than either of the forced groups.

To reinforce the relevance of discretion, women who chose to work had mean health behaviour rates almost identical to women who chose not to work, and their self-ratings of health were also similar. Unexpectedly, women who chose

not to work did report a higher rate of symptom disturbances than women who chose to work, and we may speculate on the reasons for this.

Because this group also reported the highest mean rate of doctor visits, we may suppose that perhaps women chose not to work while they were having children (which entails regular ante-natal checks). Alternatively women who chose not to work may have done so because they had a chronic illness and so were selected out of employment by their health status. On the face of it this does not appear plausible when we remember that this group rated their health highly. Yet chronic illness may be present and subjects still regard themselves as healthy (Herzlich, 1973), so this argument may hold. Nevertheless given the age range of subjects and the high percentage (79%) with dependent children, the first scenario offers the more likely explanation for both symptoms and doctor visit rates, with pregnancy rather than illness (in the sense of disease) the major cause of both.

Moreover, doctor visits was the only health variable not to produce significant differences in the overall analyses of variance. Doctor visits are probably not as useful a measure of health status as symptom reports and self-ratings, because doctors are visited for many types of health screens and checkups which are positive rather than negative. Therefore the mere noting of frequencies without evidence of whether visits were for treatment or prevention produces confounding results.

The secondary hypotheses tested in the present study were partially confirmed. A modest but significant relationship was observed between rates of proactive health behaviours, health value and appearance value. This suggests that subjects undertook healthy behaviours to achieve and then maintain good health (health was rated as very important by 67%); and also to achieve and then maintain an attractive appearance which would confirm the Hayes and Ross (1987) findings that healthy behaviours are engaged in for reasons other than health.

However no relationship was found between employment value and health behaviours, thus leading to the assumption that subjects did not engage in such behaviours to keep fit for work. This sits quite comfortably with the present study's findings. Because health has been described primarily in affective terms, these women are probably engaging in proactive behaviours as much in the belief that they can maintain a state they describe as feeling well and feeling happy, than in a calculated effort to keep fit. Nevertheless because fitness-related meanings were ranked second, we may suppose that women in multiple roles of worker, mother and/or partner do regard health as necessary for daily functioning. Multiple responses to the meaning of health saw subjects frequently offering feeling well and keeping fit as their responses, although not consciously undertaking healthy behaviors in order to remain at work. Internal and intangible factors including health beliefs, emotions and perceptions of attractiveness appear to drive subjects' health-related actions rather more than external and tangible factors such as work.

When addressing health behaviours, we recall that research has shown (Kessler, House & Turner, 1987) that the unemployed tend to engage in negative behaviours such as alcohol abuse. These negative behaviours would operate to exacerbate any symptom reports and possibly make them more disturbing. Practically we may expect that women who are forced to be unemployed cannot afford to smoke or drink, and yet casual observation seems to gainsay that expectation. Perhaps smoking and alcohol operate as an escape route for women in a forced condition who see themselves as powerless. In this case women who were forced to work would also engage in negative behaviours.

Examination of findings in the present study confirms that the forced groups did engage in lower rates of proactive health behaviours than either of the choice groups. The construct of choice therefore affects health behaviours as well as physical health status. Future research may consider exploring for a possible relationship between alcohol use, smoking behaviour, and employment discretion rather than employment status.

One suggestion advanced recently is that loss of employment operates on the individual's health according to the salience work holds (Kessler, House, & Turner, 1987). If paid employment is valued and yet is unattainable the individual may be expected to experience poor health. An examination of subjects' self-rated health tends to support this postulate.

Women who were forced to be unemployed (i.e. they wanted work and could not find any) rated their health the worst of any group. In addition they rated symptoms as only slightly less disturbing than the women who were forced to work, and engaged in the lowest rate of proactive health behaviours of any group. This low rate confirms the passivity and reactive style of the unemployed noted by Macky and Haines (1982). Nevertheless findings from this study support the contention that it is the subject's perception (of a lack of discretion over their work status) which negatively affects health behaviours (see also Seeman and Seeman, 1983), rather than the factor of being employed.

The strong and significant ($r = .62$, $p < .001$) correlation between self-rated health and symptoms supports the final hypothesis that women are perceptive to symptoms and to their body state. Whether this is confounded by the majority of this sample valuing their health highly is a moot point. If one's health is valued highly, it is reasonable to expect close monitoring of physical symptoms to maintain and protect it. Nevertheless if women are generally more interested in health-related issues and their acute perceptions of somatic changes do provide accurate health ratings, previous research on gender driven health perceptions is confirmed.

The last health-related area investigated was barriers to health care which has been identified recently as the most salient factor of the Health Belief Model. Escalating costs may lead in future to a reduced level of health in the population as individuals perceive themselves powerless to effect any positive health change, and adopt a passive approach previously linked with

unemployment. On the other hand, if individuals refuse powerlessness, this may have the effect of seeing more self-care. In this context self-care may be described as a positive effort, however in other contexts it could be negative.

A disturbing aspect of the present findings was the rate of dissatisfaction with the present health service system expressed by nearly one-quarter of respondents. We may only guess at the impact on an individual's health if they do not seek care because of this dissatisfaction. This may reduce their physical health status, or see inappropriate attempts at self-care.

Caveats on these findings include the fact that the sample was not randomly selected. Because it was necessary to gather sufficient numbers for each group, women were sought out and asked for their assistance. This also introduces the factor of volunteer subjects. Because the women volunteered they may represent a biased sample of respondents who are particularly interested in their health and in health matters generally. Nevertheless as noted (e.g. Verbrugge, 1983) women are generally more interested in health matters than are men, and this study attempts to reflect only women's health.

Finally because the study is cross-sectional, no trends or patterns are discernable and no efforts to predict such trends are possible within its limited scope. A longitudinal study following women across several years and changing circumstances may establish causal links between choice and physical health which would be informative.

A future study may attempt to include men in the same hypotheses. This could see many more social factors impacting on the design. Traditionally men have been defined by their employment status, to a far greater degree than women. When introduced, an early question has invariably been "what do you do?" (for a job). While women may be comfortable with choosing to stay home and not seek paid work, for men be comfortable with the same choice a societal shift in the meaning and value of paid employment is necessary. Many women

accept their partner as "househusband" rather than "breadwinner", but the majority of male peers still probably think it not a suitable occupation for a "bloke".

Another factor for future research is that of socio-economic status (SES) which was not included in this study and which clearly impacts on health behaviours (Williams, 1990); and on health status (Mirowsky & Ross, 1986). High SES individuals have been shown to display less symptoms of distress and a higher health status. Low SES individuals on the other hand operate on a shorter time-frame and are therefore less likely to engage in proactive health behaviours with long term goals. Does high SES empower individuals and so improve their health, or do those individuals who see themselves as having power and control end up being in the high SES category because of their internal motivations and perceptions? If SES were included in a longitudinal study its temporal effect may be defined. Moreover, the probable link between SES, physical health, and perceptions of employment choice and control offers a fruitful area for investigation.

Since SES clearly affects physical health, it was considered a possibility that choice may be confounded by SES. For example, women in a forced condition may be lower SES subjects than women in a chosen condition. It was only possible to test this proposition in the employed group where SES measures were available. When SES distributions were compared for forced condition working women there were no significant differences ($\chi^2 = 6.697$, df = 5, n.s.). Therefore it appears than SES has not confounded the findings on choice.

The final factor outside the parameters of this study which offers an avenue for research, is the presence or absence of children. If children impose an additional health strain as Barnett and Baruch (1985) suggest, may that strain be ameliorated by perceptions of choice? If women perceive that they have no

choice over their employment status, does the presence of a child at home act as compensation or exacerbation?

In conclusion, the strong interrelationship between health variables measured in this study suggests that subjective self-ratings play a large part in actual health. Research (e.g. Idler & Kasl, 1990) has shown that individuals who considered that they were well (even with chronic illness present) did in fact live longer than those who considered they were ill. If self-ratings play so large a part in health, the cognitions we hold about ourselves must act as mediators. We are what we believe, in physical health as well as psychological health.

Therefore the broad issue of choice perception which has been found to account for significant differences in the physical health of this female sample, should be addressed more in future research. Rather than focussing on external variables, this study has highlighted the salience of internal variables. If women believe they have control they not only engage in more healthy acts (thus actively improving health), but invariably rate their health highly as well. The challenge for the future is to assist us to believe in ourselves. By so believing and rating ourselves as healthy, we are well on the way to positive health.

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APPENDIX A

An Investigation into the Impact of Employment Status on Women's Health Behaviours and Health Status.

I am a post-graduate psychology student conducting a survey of women's health in partial fulfillment of a Masters Degree in Psychology at Massey University. In particular, my interest is in the effect of employment status on physical health. I am also interested to see if the amount of discretion we have over our employment status, has any affect on our health. Any further information on the study may be obtained from my supervisor, Kerry Chamberlain, Psychology Department, Massey University.

Am I eligible?

Any woman who is between the ages of 25 to 44 years inclusive, and who is a Wanganui resident, is eligible to participate.

What would I have to do?

If you would like to help me with this research, you will be asked to complete a questionnaire in your own time. This should take you about 15 minutes. When you have done that, I would like you to post it back to me in the envelope supplied.

What can I expect from the researcher?

If you agree to participate, you will:

* have the right to refuse to answer any particular question, and to withdraw from the study at any time;
* provide information on the understanding that it is confidential to the researcher. All questionnaires are identified only by code number, and information is coded anonymously. It will not be possible to identify individuals in any published reports;
* have the opportunity to receive a summary of the results at the completion of the study.

I can be contacted at the phone numbers, and/or address below to answer any questions you may have.

Your assistance is greatly appreciated, and results from the study should increase our knowledge of New Zealand women's health.

H. Rosemary Higgie, (B.A. Soc.Sc).
P.[redacted]

In the first set of questions, you are asked to indicate **how often you would perform** certain behaviours which have been shown to be relevant to our health. These behaviours include broad aspects of health s as nutrition, exercise, hygiene and checkups.

Please indicate how often you would perform the following behaviours by circling the number fr the scale below:

Always	5
Regularly	4
Quite Often	3
Sometimes	2
Never	1

Make sure I have plenty of light when I'm reading	1 2 3 4 5
Comb or brush my hair vigorously every day	1 2 3 4 5
Keep my weight within recommended limits for my age and height	1 2 3 4 5
Eat a balanced diet with plenty of fruit and vegetables	1 2 3 4 5
Wash my hands before touching food	1 2 3 4 5
Wash my hands after going to the toilet	1 2 3 4 5
Share a drinking cup, hairbrush, or towel with another	1 2 3 4 5
Avoid drinking beverages which contain caffeine	1 2 3 4 5
Get periodic anti-tetanus boosters	1 2 3 4 5
Visit a doctor for annual checkup	1 2 3 4 5
Visit a dentist for a six-months checkup	1 2 3 4 5
Avoid high salt foods	1 2 3 4 5
Eat fish and chips and similar fried foods	1 2 3 4 5
Take vitamin supplements	1 2 3 4 5
Make time for daily relaxation	1 2 3 4 5
Eat breakfast	1 2 3 4 5
Go to classes in aerobics, yoga, or gym	1 2 3 4 5
Smoke more than 10 cigarettes per day	1 2 3 4 5
Examine my breasts for lumps monthly	1 2 3 4 5
Brush my teeth at least twice a day	1 2 3 4 5

The second set of questions asks you to rate factors which relate to your physical health status. *Please answer the next two questions by circling the number which describes you best:*

Compared to **others your own age**, how would you rate your health at the present time?

Terrible	1
Very Poor	2
Poor	3
Fair	4
Good	5
Very Good	6
Excellent	7

Compared to **the person in excellent health**, how would you rate your health at the present time?

Terrible	1
Very Poor	2
Poor	3
Fair	4
Good	5
Very Good	6
Excellent	7

Next some common symptoms are listed. *Please indicate how much any of the following health problems have bothered or disturbed you during the past **2 months**. Circle only **one** number for each item. If you h. not had the problem at all, circle 0, if the problem has been extremely disturbing, then circle 4, and so on.*

Not at all	0
A little bit	1
Moderately	2
Quite a bit	3
Extremely	4

Sleep problems [can't get to sleep, wake up in the night, or early in the morning	0 1 2 3 4
Weight change [gained or lost 5 lbs or more	0 1 2 3 4
Back pain	0 1 2 3 4
Constipation	0 1 2 3 4
Dizziness	0 1 2 3 4
Diarrhoea	0 1 2 3 4
Faintness	0 1 2 3 4
Constant Fatigue	0 1 2 3 4
Headache	0 1 2 3 4
Migraine headache	0 1 2 3 4
Nausea and/or vomiting	0 1 2 3 4

Not at all	0
A little bit	1
Moderately	2
Quite a bit	3
Extremely	4

Acid stomach or indigestion	0 1 2 3 4	☐
Stomach pain (e.g. cramp	0 1 2 3 4	☐
Hot or cold spells	0 1 2 3 4	☐
Hands trembling	0 1 2 3 4	☐
Heart pounding or racing	0 1 2 3 4	☐
Poor appetite	0 1 2 3 4	☐
Shortness of breath,when not exercising or working hard	0 1 2 3 4	☐
Numbness or tingling in parts of your body	0 1 2 3 4	☐
Felt weak all over	0 1 2 3 4	☐
Pains in heart or chest	0 1 2 3 4	☐
Feeling low in energy	0 1 2 3 4	☐
Stuffy nose or head	0 1 2 3 4	☐
Blurred vision	0 1 2 3 4	☐
Muscle tension or soreness	0 1 2 3 4	☐
Muscle cramps	0 1 2 3 4	☐
Severe aches and pains	0 1 2 3 4	☐
Acne	0 1 2 3 4	☐
Bruises	0 1 2 3 4	☐
Nosebleed	0 1 2 3 4	☐
Pulled/strained muscle(s	0 1 2 3 4	☐
Pulled/strained ligament(s	0 1 2 3 4	☐
Cold or cough	0 1 2 3 4	☐

Now we want to identify any **chronic** conditions you may have experienced. In this context the term "chronic" means something which **recurs or which has been a continuing health problem for six months or more.**

Have you any of the following? Please circle:

asthma	arthritis	bronchitis	☐
cancer	depression	diabetes	☐
gallstones	gout	heart trouble	☐
high blood pressure		rheumatic pains	☐

other (please specify _____

Next you are asked to list any acute illness in the preceding **2 months period.** Acute illness may be defin as anything which needed some type of health care or medication. Perhaps you chose to treat yourself by self-diagnosis and medication, or you may have needed to visit your doctor.

Over the past 2 months have you had any periods of illness? Please circle

Yes	1	
No	2	☐

What were they?

☐
☐
☐

Now we would like to know about any injuries or accidents which you may have had. Examples may be su things as a cut, or a fall for instance.

Over the past 2 months did you have any injury or accident? Please circle

Yes	1	
No	2	☐

What were they?

☐
☐
☐

Now we want to ask about your ability to perform your daily tasks. Has your physical health restricted you i carrying out your usual work, whether at home or in the paid workforce?

During the past **2 months**, how many days of restricted activity due to **illness or injury** have you had?

_____ days. ☐☐

During the past **2 months,** how many days have you had **in bed** because of ill-health?

_____ days. ☐☐

During the past **2 months**, how many days have you experienced **chronic** illness(es)?

_____ days. ☐☐

Finally I would like you to tell us how many visits to a doctor you have made for your **own** health, **during th past year.**

Number of visits: ☐☐

Next we want to ask about how important some things are in your life. For the next six questions, please circle one response from 1 to 5, as to how important it is to **you**:

Not at all important	1
Not very important	2
Somewhat important	3
Quite important	4
Very important	5

How important is your health, to you personally	1 2 3 4 5	☐
How important is having paid work, to you personally?	1 2 3 4 5	☐
How important is it to you to be well dressed?	1 2 3 4 5	☐
How important is it to you to have a good complexion?	1 2 3 4 5	☐
How important is it to you to have good posture?	1 2 3 4 5	☐
How important is it to you to be attractive to the opposite sex?	1 2 3 4 5	☐

In your own words, please describe briefly what the expression **"being healthy"** means to you?

In your own words, please describe briefly what sort of thing would **stop** you from seeking health care:

From whom would you seek health advice or assistance, other than a doctor?

For the final set of questions, we would like some personal data about who you are. This will assist us in drawing conclusions from the information you give. *Where there is a number beside a question option, please circle the one which applies to* ***you.***

In what year were you born?_____

Would you describe yourself as:

European	1
Pakeha	2
Maori	3
Other (please specify	4

Are you:

Single	1	
Married, or living as married	2	
Separated	3	
Divorced	4	
Widowed	5	☐

Do you have any children living with you?

Yes	1	
No	2	☐

What was your **household** income (before tax) from all sources for the past year?

$..... ☐☐

What was your own **personal** income (before tax) from all sources for the past year?

$..... ☐☐

What is the highest level of education you have obtained?

Less than School Certifcate	1	
School Certificate	2	
University Entrance	3	
Some tertiary training [polytech, nursing, or teaching,e.g]	4	
A graduate from the above	5	
Some university education	6	
Graduate from the above	7	
Post graduate degree or more	8	
Other (please specify)	9	☐

Now we would like some information on your employment status:

At present are you in paid employment, either full or part time? Please circle:

Yes 1

No 2 ☐

If yes, how many hours do you usually work each week?

_____hours ☐☐

What is your work? (Please be as specific as possible in your reply): ☐☐☐☐

If you **are** in paid employment, is that because:

You choose to work? 1

You have to work to support your family? 2 ☐

If you are **not** in paid employment, is that because;

You do not want a job? 1

You cannot find a job? 2 ☐

That is the end of the questionnaire. Thank you most sincerely for giving up your time and for making the effort needed to complete the questions. As outlined in the explanation sheet fronting this questionnaire, your contribution is valuable and will further our knowledge on the health of women in New Zealand. ***Please return your questionnaire in the envelope provided as soon as possible.***

Should you wish to receive a summmary of the results, please print clearly, your name and address in the space below.

Name _____

Address _____

_____

APPENDIX B

WOMEN'S HEALTH SURVEY

SUMMARY

During May to July 1991 you were one of the participants in my research. Questionnaires were given out to 245 women in Wanganui, and 171 were returned for analysis. Ages were evenly spread, with 46 women aged 25-29; 46 women aged 30-34; 36 women aged 35-39; and 38 women aged between 40-44 years. The vast majority were European/Pakeha (89%), with 6% Maori and the remaining 5% all other races. Most of the women were married (69%), and had a child living at home (79%).

One quarter of the women had not obtained School Certificate, nearly another quarter did have School Certificate (22%), and another quarter (26%) had some tertiary training such as polytech courses. Only 3% had a university degree.

Household incomes showed 37% of families earned under $25,000, with 30% earning more than $45,000. Of the women's personal incomes 54% earned less than $15,000, and 5% earned more than $35,000. Because the personal income report was from all women, including those not in paid employment, I looked at the numbers of unemployed women (37%) and found that this left 17% of women who worked, and earned under $15,000. These women probably worked part-time.

Of the women working in paid employment, 48% were full-time workers; 20% worked between 21 hours and 35 hours; and 32% worked up to 20 hours weekly. Paid employment was valued as being "very" important by 42% of all the women, and only 7% said paid employment was "not at all" important to them.

Relating to employment discretion: 45% had chosen to work; and 19% were forced to work from financial necessity; 17% had chosen to stay at home; and the last 19% wanted work, but could not find any.

Symptoms reported most often and rated most disturbing were "feeling low in energy" and "sleep problems". Least often reported were "nosebleeds" and "pulled ligaments". Of the 171 respondents, 63% had no chronic illnesses, but of the women who did, the most common was depression. Very few women had any illness (17%), or injury (16%) in the previous two months. The most common illness was flu' and the most common injuries were cuts and abrasions.

Health was rated as "very" important by 67% of the women, and only 4% said that their health was either "not at all" or "not very" important to them.

When asked what "being healthy" meant to them, 55% said "feeling well"; with 43% replying "being fit". As expected, the most frequently mentioned barrier to receivng health care was cost (57%). Naturopaths and homeopaths were most often mentioned (35%) as sources of alternative health advice, closely followed by pharmacists (31%).

Previous research on employed vs. unemployed workers suggests that workers in paid employment have higher health status than unemployed workers, but I found no difference. However my thesis was that perceived employment discretion was more relevant to health than employment status. Accordingly I grouped the women respondents into those who had their choice (either to work or not), and those who were *forced* (to work or not).

Analysis was carried out on these groups with the results confirming my expectations. The factor which I have called "choice", was a stronger predictor of good health than employment status. Choice accounted for
highly significant variations in self-rated health, symptom reports, and health behaviors.

In conclusion I wish to thank all the women who spared me their time and effort, and completed the questionnaires. I am especially pleased to have got the results I hoped for, but I could not have done it without you, the women of Wanganui. Thank you.

H. Rosemary Higgie (B.A. Soc.Sc).
P.O. [redacted]