

CHAPTER 5

CONCLUSION

The present study was directed at examining the extent to which Self-Efficacy, Health Beliefs, and Health Locus of Control were predictors of compliance with three specific Health Behaviours - Smoking, Dietary Habits, and Exercise in women over a period of three months. Two reasons were cited in support of limiting the inquiry to women and adopting these specific Health Behaviours for examination. One was, that Health Behaviour varies by gender. Verbrugge, (1979) has argued that both physical and psychological health may be related to gender patterns as women and men may have different behavioural factors which may determine their physical and psychological health. Other researchers for example have stressed that women generally are less likely to smoke, engage in regular exercise, and more likely to monitor their diet (Waldron 1988). The other reason for undertaking research on women's health and health behaviours were for policy reasons. It is noticed that women are under-represented in official statistics on health and health care (Oakley & Oakley 1979; Nissel, 1980)

The study also aimed at determining whether modification of life-styles in respect of these Health Behaviours was conducive to the improvement of Health. In this regard this study attempted to highlight the best predictor of health behaviour modification from among three of the most influential predictor variables - Health Beliefs, Health Locus of Control, and Self-Efficacy.

Specific models and theories relating to Health Beliefs, Health Locus of Control, and Self-Efficacy were used in this study. Particular scales relating to Physical and Psychological Health were adopted in the analysis of the results. In relation to the examination of the variables of each of the Health Behaviours identified in this study,

questionnaires relating to Health Beliefs, Health Locus of Control, and Self-Efficacy were used. Separate scales for Physical and Psychological Health were adopted.

Five Hypotheses were posed in the beginning. At the first instance, it was hypothesised that healthy behaviours would be associated with good physical and psychological health at the beginning and end of the study. It was then hypothesised that Health Beliefs, Health Locus of Control and Self-Efficacy would be predictive of compliance with Health Behaviours within the three-month period of the study. Lastly it was hypothesised that change in Health Beliefs would be related to change in Health Behaviours during the three-month period of this study, whereas Self-Efficacy and Health Locus of Control would not be so related.

The analysis of the results obtained indicated that the Hypotheses in relation to Health Beliefs and Self-Efficacy as predictors of change in Health Behaviours were substantially proved. Thus, in relation to smoking behaviour and in average dietary habits, Health Beliefs were found to be predictors of change. It was also found that Self-Efficacy was a significant predictor of change in certain specific Dietary Habits, and in Exercise Behaviour. One of the reasons why the assumption of the Hypothesis, in relation to Health Locus of Control, was not proved may have been because of the use multidimensional scale instead of specific scales. The primary Hypothesis relating to good Health being associated with good Health Behaviours was also proved by the results of this thesis.

The Hypothesis in regard to the direct relationship between Health Beliefs and Health Behaviours was not proven by the results obtained in this study. This may be partially attributed to the content of the written information provided to the participants in the study. However the strong inverse relationship between the two indicated in the results can provide an impetus for further research in this area.

Overall, the analysis of the results of the present study indicated that both Self-Efficacy and Health Beliefs were predictors of change in the specific Health Behaviours of the participants in this study. Health Beliefs was accepted as predictor

regardless of positive or negative prediction of change. But the Hypotheses with respect to both of these predictors were not fully proved. This may be attributed to two factors. One factor may be that the standards adopted in the Health Belief Model may not be a foolproof; the other may be related to the shortcomings of the present study. In respect of the first factor, it has already been pointed out in Chapter 4 that Health Beliefs may have to be supplemented by other variables.

The present study used an intervention in the form of a written material. The written material contained information about health and health risk factors which was prepared by the investigator. This written information was provided to the participants to determine whether written information influenced the participants perception of their health beliefs, which in turn change their health behaviours and subsequently the overall health of the subjects. The intervention through written material has been used by researchers, in health promotion (Weiss, 1984). However, the written material used in the present study was not directed to conduct the testing of an intervention programme, rather it was conceived to create awareness and knowledge about health and health related risk factors. The study did not have a control group whereby in a way it would be difficult to ascertain the changes in health beliefs as a result of the written material. This could be seen as the flaw of the design of the study. Interestingly enough, the study did see the change in the health beliefs of the participants in the present study from Time 1 and Time 2, after providing the participants with written material. Thereby it could be concluded that the written material did influence health beliefs of the participants, but how much change could be attributed to the written information is not certain. This leaves room for the future study which could use the control group to ascertain the effectiveness of the written material in order to change the health beliefs which in turn could change the health behaviours. The shortcomings of the present study may be overcome in subsequent studies by, for example, including more participants, a control group, and extending the time frame of the study

The present study has made a contribution which could be attributed to the fact that it has reinforced some of the earlier studies in this area by focussing on three specific Health Behaviours, and by limiting the inquiry to women. Another contribution of this study is the use of identification of some specific areas and factors which are in need of further inquiry. The investigator considered the suggestions made by Baranowski et al., (1990), highlighted in chapter 1, in which compliance to new health behaviours is enhanced by making the programmes easy to follow. This point was considered by the investigator, and the task was made less cumbersome, by way of providing the set of questionnaires three times, and also the participants remained enthusiastic in the study by keeping in touch with them. This regular contact proved to be effective as the drop-out rate among the participants was minimal. However, the women participants who smoked were fewer in number, which could have made the results in smoking behaviour inconclusive. These limitations were accepted in the context of the study. Despite some drawbacks, the findings of this thesis are significant enough to contribute towards an understanding in these areas of Health and Health Behaviour.

Limitations of the Study

A number of limitations of the study have been highlighted in the above sections. However there are further limitations that need to be borne in mind.

The scales used to measure Health Beliefs in the present study were derived from the scales which have been used in the existing research. Most scales were modified slightly to make them more applicable to the subject matter of the present study. These modified scales were not subjected to independent psychometric analysis and it is possible that they may not bear all the psychometric qualities of the original scale. This can be considered to be a limitation of the data gathered in the study.

It was noted on page 51 that Multidimensional Health Locus of Control measure was based on the scale designed by Wallston et al (1978). Although not mentioned on page 51, the changes consisted of focusing on an individual's overall health and

avoidance of bad health rather than specifically on sickness. For example, the questions, “*No matter what I do, if I am going to get sick, I will get sick*”, was changed to “*No matter what I do, if I am going to have bad health I will*”. “*If I take care of myself, I can avoid illness*”, was changed to “*If I take care of myself, I can avoid having bad health*”.

These changes may have modified the psychometric properties of the measure. No independent assessment of these psychometric properties was made and this represents a further limitation of the study.

The data analysis used in the present study involved numerous independent statistical tests. It is possible that this procedure increased the chance of type 1 errors occurring. It may be advisable to treat findings with only moderate significant levels with caution.

BIBLIOGRAPHY

- Adler, N., & Matthews, K. (1994). Health psychology: Why do some people get sick and some stay well. Annual Review of Psychology, 45, 229.
- Aiken, L.S., West, S.G., Woodward, C.K., & Reno, R.R. (1994). Health beliefs and compliance with mammography-screening recommendations in asymptomatic women. Health Psychology, 13 (2), 122-129.
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. Psychological Bulletin, 84, 888-918.
- Alexander, L.L., & LaRosa, J.H. (1994). New Dimentions in Women's Health. Jones and Barthett International: Boston, London.
- American Cancer Society. (1992). Cancer Facts and Figures-1992. New York: American Cancer Society.
- American College of Sports Medicine. (1991). Guidelines for graded exercise testing and exercise prescription. Philadelphia, Lea and Febiger.
- Anderson, J.W., Smith, B.M., & Gustafson, N.J. (1994). Health benefits and practical aspects of high-fiber diets. American Journal of Clinical Nutrition, 59 (5S), Supp. 1242S-7S.
- Armstrong, B.K., de-Klerk, N.H., Shean, R.E., Dunn, D.A., & Dolin, P.J. (1990). Influence of education and advertising on the uptake of smoking by children. Medical Journal of Australia, 5, 152(3), 117-124.
- Auerbach, O., Hammond, E.C., & Garfinkel, L. (1979). Changes in Bronchial Epithelium in relation to cigarette smoking, 1955-60vs. 1970-77. New England Journal of Medicine, 300(8), 381-386
- Avis, N.E., McKinlay, J.B., & Smith, K.W. (1990). Is cardiovascular risk factor knowledge sufficient to influence behaviour. American Journal of Preventative-Medicine, 6(3), 137-144.

- Bahrke, M.S., & Morgan, W.P. (1978). Anxiety reduction following exercise and meditation. Cognitive Therapy and Research, 2, 323-334.
- Baile, W.F., & Engel, B.F. (1978). A behavioural strategy for promoting treatment compliance following myocardial infarction. Psychosomatic Medicine, 40, 413-419.
- Balch, P., & Ross, A.W. (1975). Predicting success in weight reduction as a function of locus of control: a unidimensional and multidimensional approach. Journal of Consulting and Clinical Psychology, 43, 119.
- Bandura A. (1969). Principles of Behaviour Modification. New York: Holt, Rinehart & Winston.
- Bandura, A. (1977a). Social Learning Theory. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1977b). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.
- Bandura, A. (1978). Reflections on self-efficacy. Advances in Behaviour Research and Therapy, 1, 237-269.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. American Psychologist, 37, 122-147.
- Bandura, A. (1986). The social foundations of thought and action. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A., Adams, N.E., Beyer, J. (1977). Cognitive processes determining behaviour change. Journal of Personality and Social Psychology, 35, 125-139.
- Banks, M.H. (1983). Validation of the General Health Questionnaire in a young community sample. Psychological Medicine, 13, 349-54.
- Baranowski, T. (1990) Reciprocal determinism at the stages of behavioural change: An integration of community, personal, & behavioural perspectives. International Quarterly of Community Health Education, 10, 297-327.

- Baranowski, T., Henske, J., Simons-Morton, B., & Palmer, J. (1990). Dietary change for Cardiovascular disease prevention among black American families. Special Issue. Nutrition Education Research, 5(4), 433-443.
- Beck, K.H., & Lund, A.K. (1982). The effects of health threat seriousness and personal efficacy upon intentions and behaviour. Journal of Applied Social Psychology, 42, 861-865.
- Becker, M.H., & Rosenstock, I.M. (1984). Compliance with medical advice. In Steptoe A and Matthews A (Eds.), Health Care and Human Behaviour: London, Academic Press.
- Becker, M.H., Cummings K.M., & Maile, M.C. (1980). Bringing the models together: An empirical approach to combining variables used to explain health actions. Journal of Behavioural Medicine, 3, 123-145.
- Becker, M.H., Haefner, D.P., & Maiman, L.A. (1977a). The Health Belief Model in prediction of dietary compliance: A field experiment. Journal of Health and Social Behaviour, 18, 348-366.
- Becker, M.H., Maiman, L.A., Kirscht, J.P., Haefner, D.P., & Drachman, R.H. (1977b). Selected psychological models and correlates of individual health - related behaviors. Medical Care, 15, 27-46,
- Becker, M.H. (1974). The Health Belief Model and sick role behaviour. Health Education Monographs, 2(4), 409-419.
- Becker, M.H., & Maiman, L.A. (1975). Sociobehavioural determinants of compliance with health and medical care recommendations. Medical Care, 13, 10-24.
- Beiser, M. (1974). Components and correlates of mental well-being. Journal of Health and Social Behaviour, 1, 409-419.
- Berger, B.G. (1984). Running away from anxiety and depression: a female as well as male race. In M.L.Sachs & G.W. Buftone (Eds.), Running as therapy: An integrated approach. Lincoln: University of Nebraska Press.

- Bernstein, L. (1978). Exercise, sex and heart disease. Dental Anaesthesia and Sedation, 7, 19-21.
- Blair, S.N., Piserchia, P.V., Wilbur, C.S., & Crowder, J.H. (1986). A public health intervention model for work-site health promotion. Journal of the American Medical Association, 255, 921-926.
- Blair, A.J., Booth, D.A., Lewis, V.J., & Wainwright, C.J. (1989). The relative success of official and informal weight reduction techniques: Retrospective correlational evidence. Psychology and Health, 3(3), 195-206.
- Blumenthal, J.A., & Emery, C.F. (1988). Rehabilitation of patients following myocardial infarction. Journal of Consulting and Clinical Psychology, 56(3), 374-381.
- Booth-Kewley, S. & Friedman, H.S. (1987). Psychological predictors of heart disease: A quantitative review. Psychological Bulletin, 101(3), 343-362.
- Borrelli, B., & Mermestain, R.(1994). Goal setting and behaviour change in a smoking cessation program. Cognitive Therapy and Research, 18(1), 69-83.
- Brannon, L., & Feist, J. (Eds.). (1992). Health Psychology: An introduction to behavior and health. Belmont, Calif.: Wadsworth Pub. Co.
- Brawley, L.R. (1993). The practicality of using social psychological theories for exercise and health research and intervention. Special Issue: the application of social psychological theories to health and exercise. Journal of Applied Sport Psychology, 5(2), 99-115.
- Breslow, L., Fielding, J., Herrman, A.A., & Wilbur, C.S. (1990). Worksite Health Promotion: Its evolution and the Johnson & Johnson experience. Preventative Medicine, 19, 13-21.
- Bristol J.B., Emmette, P.M., Heaton K.W. & Williamson R.C.N. (1985). Sugar, fat, and the risk of colorectal cancer. British Medical Journal, 291, 1467-1470.
- Broome, A.K. (Ed). (1989). Health psychology: Processes and applications. London: Chapman and Hall.

- Broverman, I., Broverman, D., Clarkson, R., Rosenkrantz, P., & Vogel, S. (1970). Sex role stereotypes and clinical judgments of mental health. Journal of Consulting and Clinical Psychology, 34, 1-7.
- Burvill, P. W., & Knuiman, M.W. (1983). Which version of the general health questionnaire should be used in community studies? Australian and New Zealand Journal of Psychiatry, 17, 237-242.
- Byer, C.O., & Shainberg, L.W. (1991). Living well: health in your hands. New York: Harper Collins Publishers.
- Byrne, A., & Byrne, D.G. (1993). The effect of exercise on depression, anxiety and other mood states: A review. Journal Psychosomatic Research, 37(6), 565-574.
- Calnan, M. (1989). Control over health and patterns of health-related behaviour. Special Issue: Health Self-Care. Social Science and Medicine, 29(2), 131-136.
- Cannon, G. (1992). Food and health: the Experts Agree. London: The Consumers' Association.
- Cannon, J.G., & Kluger, M.J. (1983) . Endogenous pyrogens activity in human plasma after exercise. Science, 220, 617-619.
- Carey, K.B., & Carey, M.P. (1993). Changes in self-efficacy resulting from unaided attempts to quit smoking. Psychology of Addictive Behaviours, 7(4), 219-224.
- Carlson, B., & Petty, K. (1989). Health locus of control and participation in physical activity. American Journal of Health Promotion, 3, 32-37.
- Champion, V.L. (1994): strategies to increase mammography utilization. Medical Care, 32(2), 118-129.
- Cheng, T.A. (1985). A pilot study of mental disorders in Taiwan. Psychological Medicine, 15, 195-203.
- Conditte, M.M., & Lichtenstein, E. (1981). Self-efficacy and relapse in smoking cessation programs. Journal of Consulting and Clinical Psychology, 49(5), 648-658.

- Conner, M., & Norman, P. (Eds.). (1996). Predicting health behaviour: Research and practice with social cognition models. Buckingham; Philadelphia: Open University Press.
- Contento, I.R., & Murphy, B.M. (1990). Psycho-social factors differentiating people who reported making desirable changes in their diets from those who did not. Journal of Nutritional Education, 22(1), 6-14.
- Cook, R., & Benton, D. (1993). The relationship between diet and mental health. Personality and Individual Differences, 14(3), 397-403.
- Council on Scientific Affairs. (1989). Dietary fibre and health. Journal of American Medical Association, 28, 262(4), 542-546.
- Crossman, J., & Eyjolfsson, K. (1991). Perceptions of participants regarding the long-term impact of an education and support program for heart attack and heart surgery patients & their partners. Journal of Community Psychology, 19(4), 333-336.
- Davis, P.R. (1977). Man and manual labour. Ergonomics, 20, 601-609.
- Department of Health (1992). Health of the Nation. London: HMSO.
- Desharnais, R., Bouillon, J., & Godin, G. (1986). Self-efficacy and outcome expectations as determinants of exercise adherence. Psychological Reports, 59(3), 1155-1159.
- Desharnais, R., Jobin, J., & Cote, C. & Godwin (1993). Aerobic exercise and the placebo effect: A controlled study. Psychosomatic Medicine, 55, 149-154.
- DeSola-Pool, I., Frey, F.W., Schramm, W., Maccoby, N., & Parker, E. B. (1973) (Eds.), Handbook of Communication. Chicago, Rand McNally.
- Devins, G.M., & Edwards, P.J. (1988). Self-efficacy and smoking reduction in chronic obstructive pulmonary disease. Behavior Research and Therapy, 26, 127-135.
- DeVries, H. (1980). Physiology of Exercise. Dubuque: WM Brown.

- Dhillon, P.K., & Sexena, S. (1988). Mental health and attitudes in relation to smoking behaviour and academic discipline: A comparative study. Manas, 35(1-2), 19-27.
- DiClemente, C.C., Prochaska, J.O., & Gibertini, M. (1985). Self-efficacy and the stages of self change of smoking. Cognitive Therapy and Research, 9, 181-200.
- DiMatteo, M.R. (1991). The psychology of health, illness, and medical Care: An individual perspective. Brooks/Cole Publishing Com, Wadsworth, Inc., Belmont, California.
- Directorate of Welsh Heart Programme (1985). Pulse of Wales: Preliminary Report of the Welsh Heart Survey, 1986, Heartbeat Report No. 4, Cardiff: Health Promotion Wales.
- Dishman, R.K. (1985). Medical psychology in exercise and sport. Medical Clinics of North America, 69, 123-143.
- Donovan, D.M., & Marlatt, G.A. (Eds.). (1988). Assessment of Addictive Behaviors. New York: Guilford.
- Doyne, E.J., Ossip-Klien, D.J., Bowman, E.D., Osborn, K.M., McDougall-Wilson, I.B., & Neimeyer, R.A. (1987). Running versus weight lifting in the treatment of depression. Journal of Consulting and Clinical Psychology, 55, 748-754.
- Dua, J.K. (1993). Role of negative affect and positive affect in stress, depression, self-esteem, assertiveness, type A behaviours, psychological health, and physical health. Genetic, Social, and General Psychological Monographs, 119, 515-552.
- Dua, J.K. (1994). Comparative predictive value of attributional style, negative affect, and positive affect in predicting self-reported physical health and psychological health. Journal of Psychosomatic Research, 38(7), 669-680.
- Dua, J.K., & Price, I. (1992). Psychometric analysis of sub-scales of Thoughts and Real-life Experiences Scale. Behavioural Change, 9, 104-111.

- Duncan, T.E., & McAuley, E. (1993). Social support and efficiency cognitions in exercise adherence: A latent growth curve analysis. Journal of Behavioral Medicine, 16(2), 199-218.
- Dwyer, J.T. (1991). Nutritional consequences of vegetarianism. In R.E. Olson, D.M. Bier and D.B. McCormick (Eds.), Annual Review of Nutrition. Palo Alto CA: Annual Reviews.
- Dzewaltowski, D.A., Noble, J.M., & Shaw J.M. (1990). Physical Activity Participation: Social cognitive theory versus the theories of reasoned action and planned behavior. Journal of Sport and Exercise Psychology, 12(4), 388-405.
- Ellickson, P.L., & Bell, R.M. (1990). Prospects for preventing drug use among adolescents. California: Rand.
- Farquhar, J.W., Fortman, S.P., Maccoby, N., Haskell, W.L., Williams, P.T., Flora, J.A., Taylor, C.R., Brown, B.W., Solomon, D.S., & Hulley, S.B. (1985). The Stanford five city project: design and methods. American Journal of Epidemiology, 122, 232-334.
- Feltz, D.L., & Riessinger, C.A. (1990). Effects of in vivo emotive imagery and performance feedback on self-efficacy and muscular endurance. Journal of Sport and Exercise Psychology, 12, 132-143.
- Fielding, J.E. (1982). Effectiveness of employee health improvements programs. Journal of Occupational Medicine, 12, 358-381.(24), 907-916.
- Filteau, S.M. , Menzies , R.A., Kaido, T.J., & O' Grady, M.P. (1992). Effects of exercise on immune functions of undernourished mice. Life- Sciences, 51, 565-574.
- Fishbein, M., & Ajzen, I. (1975). Beliefs, attitudes, intention, and behavior: An introduction to theory and research. Reading, Mass. Addison-Wesley.
- Flay, B.R., (1987). Selling the smokless society (APHA Public Health Practice Series). American Public Health Association. Washington, DC

- Frewen, S., Schomer, H., Dunne, T. (1994). Health Belief Model interpretation of compliance factors in a weight loss and cardiac rehabilitation programme. South African Journal of Psychology, 24(1), 39-43.
- Fuchs, R. (1995). Causal models of physical exercise, participation testing the predictive power of the construct: pressure to change. Journal of Applied Social Psychology.
- Fuchs, R. & Schwarzer, R. (1994). Self-Efficacy and Health Behaviours. In M. Conner and P. Norman (Eds.), Predicting health behaviour: Research and practice with social cognition models, Open University Press, Buckingham, Philadelphia.
- Garcia, M.E., Schmitz, J.M., & Doerfler, L.A. (1990). A fine grained analysis of self-efficacy in self-initiated attempts to quit smoking. Journal of Consulting and Clinical Psychology, 58(3), 317-322.
- George, L.K. (1978). 'The Impact of Personality and Social Status Factors upon Levels of Activity and Psychological Well-being. Journal of Gerontology, 33(6), 840-847.
- Giles, G.G., Hill, D.J., & Silver, B. (1991). The lung cancer epidemic in Australia 1920-1989. Australian Journal of Public Health, 15(3), 245-247.
- Glanz, K., Lewis, F.M., & Rimer, B.K. (Eds.). (1990). Health Behaviour and Health Education. San Francisco, CA: Jossey-Bass.
- Goldberg, D.P. (1972). The detection of psychiatric illness by questionnaire. London: Oxford University Press.
- Goldberg, D.P. (1977) Manual of general health questionnaire. Berks: Nelson Publishing Company.
- Goldberg, D.P., & Hiller, V.F. (1979) . A scaled version of the General Health Questionnaire. Psychological Medicine, 9, 139-145.
- Goldberg, D.P., & Williams, P. (1988). A user's guide to the General Health Questionnaire. Windsor, Berkshire: NFER-Nelson.

- Goldberg, D.P., Kay, C., & Thompson, L. (1976). Psychiatric morbidity in general practice and the community. Psychological Medicine, 6, 565-569.
- Gortmaker, S., Dietz, W., Sobol, A., & Wehler, C. (1987). Increasing pediatric obesity in the United States. American Journal of Diseases in Children, 141, 535-540.
- Green, L.W. (1974) . Toward cost-benefit evaluations of health education : some concepts, methods and examples. Health Education Monographs, 2, 34-64.
- Greenberg, J. (1981). A study of stressors in college students. Health Education, 12, 8-12.
- Haines, A., Patterson, D., Rayner, M., & Hyland, K. (1992). Prevention of cardiovascular disease. Occcas Pap R Coll General Pract, 58, 67-78.
- Hallal, J.C. (1982). The relationship between health beliefs, health locus of control and self concept to the practice of breast self-examination in adult women. Nursing Research, 31, 137-142.
- Hase, S. (1992). Health behaviour following myocardial infarction. Unpublished thesis for master's (Psych), University of New England, Australia.
- Haskel, W.L. (1984). Overview: Health benefits of exercise. In J.D. Matarrazzo, S.M. Weiss, J.A. Herd, W.E. Miller & S.M. Weiss (Eds.), Behavioral health: a handbook of health enhancement and disease prevention. New York: Wiley.
- Hertog, J., Finnegan, J., Rooney, B., & Viswanath, K. (1993). Self-efficacy as a target population segmentation strategy in a diet and cancer risk reduction campaign. Health-Communication, 5(1), 21-40.
- Hickey, M.L., Owen, S.V., & Froman, R.D. (1992). Instrument development: Cardiac diet and exercise self-efficacy. Nursing Research, 41(6), 347-351.
- Hill, R. (1978). 'Internality: an Educational Imperative'. Humanistic Psychology, Summer 18(3), 43-57

- Hill, D.J., White, V.M., & Gray, N. (1991). Australian patterns of tobacco smoking in 1989. The Medical Journal of Australia, *154*, *17*, 797-801.
- Hofstetter, C., Hovell, M., Sallis, J. (1990). Social Learning Correlates of exercise self-efficacy: Early Experiences with physical activity. Social Science and Medicine *31*(10) 1169-1176
- Houpt, J.L., Orleans C.S., George L.K., & Brodie H.K. (1980). The role of Psychiatric and behavioural factors in the Practice of Medicine: American Journal of Psychiatry, *137* (1), 37-47.
- Huppert, F.A., Walters, D.E., Day, N.E., & Elliott, B.J. (1989). The factor structure of the GHQ: a reliability study on 6317 community residents. British Journal of Psychiatry, *155*, 178-185.
- Jackson, L.D. (1994). Maximising treatment adherence among back pain patients: An experimental study of the effects of physician related cues in written medical messages. Health Communication, *6*(3), 173-191.
- Janz, N.K., & Becker, M.H. (1984). The Health Belief Model: A Decade Later. Health Education Quarterly, *11*(1), 1-47.
- Jeffrey, R.W. (1988). Dietary risk factors and their modification in cardiovascular disease. Journal of Consulting and Clinical Psychology, *56*(3), 350-357.
- Jeffrey, D.B., & Katz, R.C. (1977). Take it off and keep it off. Englewood Cliffs, NJ: Prentice-Hall.
- Jenkins, C.D. (1988). Epidemiology of cardiovascular disease. Journal of Consulting and Clinical Psychology, *56*(3), 324-332.
- Jette, A.M., Cummings, K.M., Brock, B.M., (1981). The structure and reliability of health belief indices. Health Serv Res, *16*, 81-98,.
- Kamen, L.P., & Seligman, M.E.P. (1989). Explanatory style and health. In M. Johnston and T. Marteau (Eds.), Applications in Health Psychology. New Brunswick, N.J.: Transaction.

- Kasl, S., & Cobb, S. (1966). Health behavior, illness behavior, and sick role behavior. Health and illness behavior. Archives of Environmental Health, 12, 246-266; 531-541.
- King, N.J., & Remenyi, A. (1986). Health Care: A behavioural approach. Sydney: Grune & Stratton.
- King, A.C., Taylor, C.B., Haskell, W.L. & DeBusk, R.F. (1988). Strategies for increasing early adherence to and long-term maintenance of home-based exercise training in healthy middle-aged men and women. American Journal of Cardiology, 61, 628-632.
- King, H., Taylor, R., Zimmet, P., Pargeter, K., Raper, L.R., Beriki, T., & Tekanene, J. (1984). Non -insulin dependent diabetes (Niddm) in a newly independent Pacific Nation: The Republic of Kiribati. Diabetes Care, 7, 409-415.
- King, J.B. (1982). The impact of patient's perceptions of high blood pressure on attendance at screening: an extension of the health belief model, Social Science and Medicine, 16, 287-312.
- Klesges, R.C., Eck, L.H., Isabell, T.R., Fulliton, W., & Hanson, C.L. (1990). The effects of smoking status on the dietary intake, physical activity, and body fat of adult men. American Journal of Clinical Nutrition, 51, 784-789.
- Knopf, A., & Wakefield, J. (1974). Effect of medical education on smoking behaviour. British Journal of Social and Preventive Medicine, 28, 246-251.
- Laffrey, S.C., & Isenberg, M. (1983). The relationship of internal locus of control, value placed on health, perceived importance of exercise and participation in physical activity during leasure. International Journal of Nursing Studies 20, 187-96.
- Langlie, J. (1977). Social networks, health beliefs and preventive health behaviour. Journal of Health and Social Behaviour, 18, 244-260.
- Larkin, F.A., Basiotis, P.P., Riddick, H.A., Sykes, K.E., & Pao, E.M. (1990). Dietary patterns of women smokers and non smokers. Journal of American Diet Association, 90, 230-237.

- Lawrance, L. (1989). Validation of a Self-Efficacy Scale to predict adolescent smoking. Journal of Health Education Research, 4(3), 351-360.
- Levenson, H. (1974). Activism and powerful others: Distinction within the concept of internal-external control. Journal of Personality Assessment, 38, 377-383.
- Leventhal, H., Meyer, D., & Guttman, M. (1980). The role of theory in the study of compliance to high blood pressure regimens. In R. Haynes, M. Mattson., & T. Engebretson, Jr., (Eds.), Patients compliance to prescribed antihypertensive medication regimens: A report to the National Heart, Lung and Blood Institute. Bethesda, MD: N&H Publication: S1-2102.
- Levy, R.L., & Richey, C.A. (1988). Measurement and research design. In E.A. Blechman & K.D. Brownell (Eds.), Handbook of Behavioral Medicine for Women, (421-438).
- Levy, S.M. (1985). Behavior and Cancer. Lifestyle and psychosocial factors in the initiation and progression of cancer. San Francisco: Jossey-Bass.
- Lin, E.H., & Peterson, C. (1990). Pessimistic explanatory style and response to illness. Behaviour Research Therapy, 28, 243-248.
- Lindsay, J. (1986). Validity of the General Health Questionnaire in detecting psychiatric disturbance in amputees. Journal of Psychosomatic Research, 30, 277-81.
- Lockett, D.M., & Campbell, J.F. (1992). The effects of aerobic exercise on migraine. Headache, 26, 343-352.
- Logue, A.W.(1991). The psychology of eating and drinking: An introduction (2nd Ed.). New York: Freeman.
- Long, B.C., Haney, C.J., (1988). Long-term follow-up of stressed working women: A comparison of aerobic exercise and progressive relaxation. Journal of Sport and Exercise Psychology, 10(4), 461-470.
- Maddux, J.E. (1993). Social cognitive models of health and exercise behaviour: An introduction and review of conceptual issue: The application of social

- psychological theories to health and exercise. Journal of Applied Sport Psychology; 5(2), 116-140.
- Marks, B.L., Perkins, k.A., Metz, K.F., Epstein, L.H., Robertson, R.J., Goss, F.L., & Sexton, J.J. (1991). Effects of smoking status on content of caloric intake and energy expenditure. International Journal of Eating Disorders, 10, 441-449.
- Marlatt, G.A., & Gordon, J.R. (Eds.). (1985). Relapse prevention: Maintenance strategies in the treatment of addictive behaviors. New York: Guilford.
- Marlatt, G.A., Baer, J.S., & Quigley, L.A. (1994). Self-efficacy and addictive behavior. In A.Bandura (Ed.) Self-efficacy in changing societies. Marbach: Johann. Jacobs Foundation.
- Marshall, G. (1991). A multidimensional analysis of internal health locus of control beliefs: Separating the wheat from the chaff. Journal of Personality and Social Psychology, 16, 483-491.
- Matarazzo, J.D. (1980). Behavioural health and behaviour medicine: Frontiers for a new health psychology. American Psychologist, 35, 807-817.
- McAuley, E. (1992). The role of efficacy cognitions in the prediction of exercise behavior of middle-aged adults. Journal of Behavioral Medicine, 15, 65-88.
- McAuley, E. (1993). Self-efficacy and the maintenance of exercise participation in older adults. Journal of Behavioral Medicine, 16, 103-113.
- McAuley, E., & Courneya, K.S. (1992). The subjective exercise experiences scale (SEES): Development and preliminary validation. Journal of Sport and Exercise Psychology, 16(2), 163-177.
- McAuley, E., Lox, C., & Duncan, T.E. (1993). Long term maintenance of exercise, self-efficacy and physiological change in older adults. Journal of Gerontology, 48(4), 218-224.
- McCann, I.L., & Holmes, D.S. (1984). Influence of aerobic exercise on depression. Journal of personality and Social Psychology, 46, 1142-1147.

- McGuire, W.J. (1968). The nature of attitudes and attitude change. In G. Lindzey and E. Aronson (Eds.), Handbook of Social Psychology. Reading Mass Addison-Wesley.
- McLennan, P.L. Abeywardena MY, Charnock, J.S (1990). Reversal of the arrhythmogenic effects of long-term saturated fatty acid intake by dietary n-3 and n-6 polyunsaturated fatty acids. Am J Clin Nutr, 51, 53-58.
- McLeroy, K.R., Steckler, A.B., Simons-Mortan, B., Goodman, R.M., Gottlieb, N., & Burdine, J.N. (1993). Social science theory in health education: Time for a new model? Health Education Research, 8, 305-312.
- McPhillips, J.B., Eaton, C.B., Gans, K.M., Derby, C.A., Lasater, T.M., McKenney, J.L., Carleton, R.A. (1994). Dietary differences in smokers and non smokers from two southeastern New England communities. Journal of American Diet Association, 94(3), 287-292.
- Miller, W.J., & Stephens, T. (1987). The prevalence of overweight and obesity in Britain, Canada, and United States. American Journal of Public Health, 77, 38-41.
- Miller, P.J., Ross, S.M. Emmerson, R.Y., & Todt, E.H. (1989). Self-efficacy in alcoholics: Clinical validation of the Situational Confidence Questionnaire. Addictive Behaviours, 14, 217-224
- Morabia, A., & Wynder, E.L. (1990). Dietary habits of smokers, people who never smoked, and exsmokers. American Journal of Clinical Nutrition, 52, 933-937.
- Morgan, W.P. (1979). Anxiety reduction following acute physical activity. Psychiatry Annals, 9, 141-147.
- Morgan, W.P., & Goldston, S.E. (1987). Exercise and mental health. New York: Hemisphere.
- Murray, P.J. (1989). Rehabilitation information and health beliefs in the post-coronary patient: Do we meet their information needs? Journal of Advanced Nursing, 14, 686-693.

- National Heart Foundation of Australia (1988). Smoking and Heart Disease. National Heart Foundation's National Smoking and Heart Disease Advisory Committee. National Heart Foundation.
- National Heart Foundation. (1992a). Regression of Atherosclerosis. National Heart Foundation of Australia.
- National Heart Foundation. (1992b). Diet and coronary heart disease: A position statement. National Heart Foundation of Australia.
- National Research Council., (1989). National Academy of Sciences, N.R.C. Diet and Health: Implications for reducing chronic disease risk. Washington DC: National Academy Press.
- Nelson, G.E.(1989). Biological Principles with human applications (3rd Ed). New York: Wiley
- Nisbett, R.E., & Wilson, T.D. (1977). Telling more than we can know: Verbal reports on mental processes. Psychological Review, 84(3), 231, 259.
- Nissel, M. (1980). Women in government statistics: basic concepts and assumptions, Equal Opportunities Commission. Research Bulletin, 4, 5-28.
- Norman, P. (1990). Social learning theory and prediction of attendance at screening. Psychology and Health, 80, 1-28.
- Norman, P., & Bennett, P. (1996). Health locus of control. In M. Conner and P. Norman (Eds.), Predicting health behavior, (62-94). Open University Press: Buckingham, Philadelphia.
- Norman, P., & Conner, M. (1993). The role of social cognition models in predicting attendance at health checks. Psychology and Health, 8(6), 447-462.
- Nowack, K.M. (1989). Coping style, cognitive hardiness, and health status. Journal of Behavioural Medicine, 12, 145-158.

- NSW Department of Health. (1984). Smoking and the workplace: A resource manual. NSW Department of Health, Quit for Life Project, State Health Publication No. (NMR) 84-058, 23.
- O'Connell, J.K., & Price, J.H. (1982). Health locus of control of physical fitness program participants. Perceptual and Motor Skills, 55, 925-926.
- Oakley, A., & Oakley, R. (1979). Sexism in official statistics. In J. Irvine, I. Miles, and J. Evans (Eds.), Demystifying social statistics. London: Pluto Press.
- Oldenburg, B., Perkins, R.J., & Andrews, G. (1985). Controlled trial of psychological intervention in myocardial infarction. Journal of Consulting and Clinical Psychology, 53(6), 852-859.
- Pender, N.J. (1982). Health Promotion in Nursing Practice. Norwalk, Connecticut: Appleton-Century-Crofts.
- Peterkin, B.B. (1990). Dietary guidelines for Americans, 1990 edition. Journal of American Diet Association, 90(12), 1725-1727.
- Polivy, J., & Herman, C.P. (1991). Good and bad dieters: Self-perception and reaction to a dietary challenge. International Journal of Eating Disorders, 10(1), 91-99.
- Pollock, M.L., Wilmore, J.H., & Fox, S.M. (1978). Health and fitness through physical activity. New York: John Wiley & Sons.
- Pomery S.M., (1988). Dietary advice to patients for lowering Plasma Cholesterol. Notes on Cardiovascular Diseases National Heart Foundation 23 (3), 9-12.
- Power, M.J. (1988). The worst ever version of the General Health Questionnaire. Journal of Clinical Psychology, 44, 215-216.
- Puska, P., Nissinen, A., Tuomiheto, J., Salonen, J.T., Mcalister, A., Kottke, T.E., Maccoby, N., & Farquhar, J.W. (1985). The community-based strategy to prevent coronary heart disease: Conclusions from the ten years of the North Karelia Project. Annual Review of the Public Health, 6, 147-193.

- Rabinowitz, S., Melamed, S., Weisberg, E., Tal, D., & Ribak, J. (1992). Personal determinants of leisure-time exercise activities. Perceptual and Motor Skills, 75(3), 779-784.
- Ransford, H.E. (1986). Race, Heart disease worry and health protective behaviour. Social Science and Medicine 22. 1355-1362.
- Rimberg, H.M., & Lewis, R.J. (1994). Older adolescents and AIDS: Correlates of self-reported safer sex practices. Journal of Research on Adolescence, 4(3), 453-464.
- Robinson, R.G., & Price, T.R. (1982). Post-stroke depressive disorders: A follow up study of 103 patients, Stroke, 13(5), 635-41.
- Rosen, T.J., & Shipley, R.H. (1983). A stage analysis of self-initiated smoking reductions. Addictive Behaviors, 8, 263-272.
- Rosenstock, I.M. (1966). Why people use health services. Millbank Memorial Fund Quarterly, 44, 94-127.
- Rosenstock, I.M. (1974). Historical origins of the health belief model. Health Education Monographs, 2, 328-335.
- Rosenstock, I.M. (1988). Adoption and maintenance of lifestyle modifications. American Journal of Preventative Medicine, 4(6), 349-352.
- Rosenstock, I.M., Strecher, V.J., & Becker, M.H. (1988): Social learning and the health belief model. Health Education Quarterly, Sum15(2), 175-183.
- Rotter, J.B. (1966). Generalised expectancies for internal versus external control of reinforcement . Psychological Monographs, 80 (1, Whole No 609).
- Rotter, J.B. (1954). Social learning and clinical psychology. Englewood Cliffs, NJ: Prentice-Hall.
- Rundall, T.G., & Wheeler, J.R.C. (1979). The effect of income on use of preventive care: An evaluation of alternative explanations. Journal of Health and Social Behaviour, 20, 397-406.

- Sallis, J.F., Hovell, M.F., Hofstetter, C.R., & Barrington, E. (1992). Explanation of vigorous physical activity during two years using social learning variables. Social Science and Medicine, 34, 25-32.
- Sallis, J.F., Pinski, R.B., Grossman, R.M., Patterson, T.L., Nader, P.R. (1988). The development of self-efficacy scales for health-related diet and exercise behaviors. Health Education Research, 3(3), 283-292.
- Sallis, J.F., Haskell, W.L., Fortmann, S.P., Vranizan, K.M. (1986). Predictors of adoption and maintenance of physical activity in a community sample. Preventive Medicine, 15, 331-341.
- Schunk, D.H., & Carbonari, J.P. (1984). Self-efficacy models. In J.D. Matarazzo, S.M. Weiss, J.A. Herd, N.E. Miller, and S.M. Weiss (Eds.), Behavioural Health New York, John Wiley & Sons, Inc, 1984.
- Schwarzer, R., & Fuchs, R. (1996). Self-efficacy and health behaviours. In M. Conner, and P. Norman (Eds.), Predicting health behaviour: Research and practice with social cognition. (pp. 163-197). Open University Press. Buckingham. Philadelphia.
- Seeman, M., & Seeman, T.E. (1983). Health behaviour and personal autonomy: A longitudinal study of the sense of control in illness. Journal of Health and Social Behaviour, 24, 144-160.
- Segall, M.E., & Wynd, C.A. (1990). Health conception, health locus of control, and power as predictors of smoking behavior change. American Journal of Health Promotion, 4(5), 338-344.
- Shaper, A.G. (1988). Coronary Heart Disease: Risks and Reasons. London: Current Medical Literature.
- Shaw, J.M., Dzewaltowski, D.A., & McElroy, M.. (1992). Self-Efficacy and causal attributions as mediators or perceptions of psychological momentum. Journal of Sport and Exercise Psychology, 14, 134-47.

- Sheeran, P. & Abraham, C. (1996). Health Belief Model. In M. Conner & P. Norman (Eds.), Predicting Health Behaviour Research and Practice with Social Cognition Models (23-62). Open University Press Buckingham: Philadelphia
- Sheeran, P. & Abraham, C. (1992). The Health Belief Model. In M. Conner & P. Norman (ed). Predicting Health Behaviour Research and Practice with Social Cognition Models. Open University Press Buckingham. Philadelphia.
- Shephard, R.J., Verde, T.J., Thomas, S.G., & Sheke, P. (1991). Physical activity and the immune system. Canadian Journal of Sport Sciences, 16, 169-185.
- Sherer, M., Maddux, J.E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., and Rogers, R.W. (1982). The self-efficacy scale: Construction and Validation. Psychological Reports, 51, 663-671.
- Sheridan, C.L., & Radmacher, S.A. (Ed.). (1992). Health Psychology: Challenging the bio medical model. New York, US: John Wiley & Sons.
- Shipley, R.H. (1981). Maintenance of smoking cessation: Effect of follow-up letters, smoking motivation, muscle tension, and health locus of control. Journal of Consulting and Clinical Psychology, 49, 982-984.
- Siegal, D., Grady, D., Browner, W.S., & Hulley, S.B. (1988). Risk factor modification after myocardial infarction. Annals of Internal Medicine, 109, 213-218.
- Simon, K.J. & Das, A. (1984). An application of the Health Belief Model toward Educational Diagnosis for VD education. Health Education Quarterly 11(4), 403-418.
- Simons, A., Solbach, P., Sargent, J., & Leslie, M. (1986). A wellness program in the treatment of headache. Headache, 26, 343-352.
- Skelton, A.M., Murphy, E.A., Murphy, R.J., & O'Dowd, T.C. (1995). Patient education for low back pain in general practice. Special Issue: Current perspectives on Gps and clinical health promotion. Patient Education and Counseling, 25(3), 329-334.

- Slenker, S.E., Price, J.H., & O'Connell, J.K. (1985). Health locus of control of joggers and non-exercisers. Perceptual and Motor Skills, 61(1), 323-328.
- Sogaard, A.J., & Fonnebo, V. (1992). Self-reported change in health behaviour after a mass media-based health education campaign. Addictive Behaviours, 16(6), 381-388.
- Speake, D.L., Cowart, M.E., & Pellet, K. (1989). Health perceptions of the elderly. Research in Nursing and Health, 12, 93-100.
- Sperry, J.M., & Nicki, R.M. (1991). Cognitive appraisal, self-efficacy, and cigarette smoking behaviour. Scandinavian Journal of Psychology, 33(2), 125-134.
- Smith, F., (1988). 75% with virus will get AIDs, study says. Philadelphia inquirer, P/A
- Stebner, C.M., Verneti, J.P., & Gillard, H.F. (1972). Physical fitness for the prevention of coronary attacks. Journal of the American Dental Association, 85, 627-633.
- Steffy, R.A., Meichenbaum, D., & Best, J.A. (1970). Aversive and cognitive factors in the modification of smoking behavior. Behavior Research and Therapy, 8, 115-125.
- Stephoe, A., Sanderman, R., & Wardle, J. (1995). Stability and changes in health behaviours in young adults over a one year period. Psychology and Health, 10(2), 155-169.
- Steinmetz, K.A., Kushi, L.H., Bostik, R.M., Folsom, A.R., & Potter, J.D. (1994). Vegetables, fruit and colon cancer in the Iowa Women's Health Study. American Journal of Epidemiology, 139(1), 1-5.
- Stotland, S., & Zuroff, D.C. (1991). Relations between multiple measures of dieting self-efficacy and weight change in a behavioral weight control program. Behavior Therapy, 22(1), 47-59.
- Strecher, V.J., DeVellis, B.M., Becker, M.H., & Rosenstock, I.M. (1986). The role of self-efficacy in achieving health behaviour change. Health Education Quarterly, 13(1), 73-92.

- Strickland, B.R. (1978). Internal-external expectancies and health related behaviors. Journal of Consulting and Clinical Psychology, 46, 1192-1211.
- Stuart, K., Borland, R., McMurray, N. (1994). Self-efficacy, health locus of control, and smoking cessation. Addictive Behaviours, 19(1), 1-12.
- Tipton, R.M., & Worthington, E.L., (1984). The measurement of generalized self-efficacy: a study of construct validity. Journal of Personality Assessment, 48(5), 545-548.
- Tonkin, A. (1988). Cardiovascular risk factors and mortality. The Medical Journal Australia, 148, 57-58.
- Toshima, M.T., Kaplan, R.M., & Ries, A.L. (1990). Experimental evaluation of rehabilitation in chronic obstructive disease: Short-term effects on exercise endurance and health status. Health Psychology, 9(3), 237-252.
- Tuson, K.M., & Sinyor, D. (1993). On the affective benefits of acute aerobic exercise: taking stock after twenty years of research. In P. Seragnanian (Ed.), Exercise psychology: the influence of physical exercise on psychological processes. New York: John Wiley & Sons, Inc.
- U.S. Department of Health and Human Services. (1989). Reducing the health consequences of smoking-25 years later-a report of Surgeon General. (Publication No. PHS 89-8411). Rockville, MD: U.S. Dept. of Health and Human Services.
- Ursin, G., Ziegler, R.G., Subar, A.F., Graubard, B.I., Haile, R.W. & Hoover, R. (1993). Dietary Patterns associated with a low fat diet in the national health examination follow up study identification of potential confounders for epidemiological analysis. American Journal of Epidemiology, 15, 137 (8): 916-27.
- Verbrugge, L.M. (1979). Female illness rates and illness behaviour: Testing hypotheses about sex differences in health. Women and Health, 4(1), 61-75.
- Vieweg, B.W., & Hedlund, J.L. (1983). The General Health Questionnaire: A comprehensive review. Journal of Operational Psychiatry, 64, 76-81.

- Vishwanath, K., Kahn, E., Finnegan, J.R., Hertog, J., et al. (1993). Motivation and the knowledge gap: Effects of a campaign to reduce diet-related cancer risk. Special Issue: The role of communication in health promotion. Communication Research, 20(4), 546-563.
- Waldron, I.(1988). Gender and health related behavior. In D. S. Gochman (Ed.) Health Behavior: emerging research perspectives, (193-208). New York: Plenum Press.
- Wallston, K.A. (1992). Hocus-pocus, the focus isn't strictly on locus: Rotter's social learning theory modified for health. Cognitive Therapy and Research, 16, 183-199.
- Wallston, K.A., Maides, S., & Wallston, B.S. (1976). Health related information seeking as a function of health related locus of control and health value. Journal of Research in Personality, 10, 215-222.
- Wallston, B.S., Wallston, K.A., Kaplan, G.D., & Maides, S.A. (1976). Development and Validation of the Health Locus of Control Scale. Journal of Consulting and Clinical Psychology, 44, 580-585
- Wallston, K.A., & Wallston, B.S. (1978). Locus of control and Health: a review of the literature. Health Education Monographs, 6, 107-117.
- Wallston, K.A., & Wallston, B.S. (1981). Health locus of control scales. In Lefcourt, H M. (ed) Research with the health locus of control construct. New York: Academic Press.
- Wallston, K.A., & Wallston, B.S. (1982). Who is responsible for your health? The construct of health locus of control. In G.S. Sanders, G. and J. Suls., Social Psychology of Health and Illness. Hillsdale: Erlbaum.
- Wallston, K.A., Wallston, B.S., & DeVellis, R. (1978). Development of the Multidimensional Health Locus of Control (MHLC) Scales. Health Education Monographs, 6, 160-170.
- Wardle, J., Marsland, L., Sheikh, Y., Quinn, M. et al, (1992). Eating style and eating behaviour in adolescent. Appetite, 18(3), 167-183.

- Warr, P. (1978). 'A Study of Psychological Well-being'. British Journal of Psychology, 69, 111-121.
- Weinberg, R.S., Grove, R., & Jackson, A. (1992). Strategies for building self-efficacy in tennis players: a comparative analysis of Australian and American coaches. Sport Psychologist, 6, 3-13.
- Weinberg, R.S., Gould, D., Yukelson, D., & Jackson, A. (1981). The effect of preexisting and manipulated self-efficacy on competitive muscular endurance task. Journal of Sport Psychology, 4, 345-354.
- Weinberg, R.S., Yukelson, D., & Jackson, A. (1980). Effects of public and private efficacy expectations on competitive performance. Journal of Sport Psychology, 2, 340-349.
- Weinberg, R.S., Gould, D., & Jackson, A. (1979). Expectations and performance: an empirical test of Bandura's self-efficacy theory. Journal of Sport Psychology, 1, 320-331.
- Weinberger, M., Greene, J.Y., Mamlin, J.J., & Jerin, J.J. (1981). Health beliefs and smoking behaviour. American Journal of Public Health, 71, 1253-1255.
- Weiss, K. (1984). Women's Health Care-A Guide to Alternatives. Reston, VA: Reston Publishing Co.
- Weiss, S.M. (1984). Community health promotion demonstration programs: Introduction. In J.D. Matarazzo, S.M. Weiss, J.A. Herd, N.E. Miller, and S.M. Weiss (Eds.), Behavioral health: A handbook of health enhancement and disease prevention (pp.1137-1139). New York: Wiley.
- Weiss, M.R., Wiese, D.M., Klint, K.A. (1989). Head over heels with success: the relationship between self-efficacy and performance in competitive youth gymnastics. Journal of Sport and Exercise Psychology, 11, 444-451.
- Weissfeld, J.L., Kirscht, J.P., & Brock, B.M. (1990). Health beliefs in a population: The Michigan Blood Pressure Survey. Health Education Quarterly, 17(2), 141-155.

- Werry, (1986). Physical illness symptoms and allied disorders. In H.C. Quay and J.S. Werry (Eds.), Psychopathological disorders of childhood (3rd Ed.). New York: Wiley.
- Wiesner, D. (1992). Your Health, Our World : The Impact of Environmental Degradation on Human Wellbeing. The Guerusey Press Ltd, The ChaneIs Island.
- Winefield, H.R., Goldney, R.D., Winefield, A.H., & Tiggemann, M. (1989). The General Health Questionnaire's reliability and validity for Australian Youth. Australian and New Zealand Journal of Psychiatry, 23, 53-58.
- Winnet, R.A. (1985). Ecobehavioral assessment in health life-styles: Concepts and methods. In P. Karoly (Ed.), Measurement Strategies in Health Psychology (147-181). Chichester: Wiley,.
- Wojcik, J.V. (1988). Social learning predictors of the avoidance of smoking relapse. Addictive Behaviours, 13(2) 177-180
- World Health Organisation (1982). Prevention of Coronary Heart Disease. A report of a WHO Expert Committee. Technical Report Series No. 678, Geneva: WHO.
- World Health Organisation (1990). WHO Study Group. Diet, nutrition, and the prevention of chronic diseases, Geneva: (WHO Tech Rep Ser No. 797).
- Wurtele, S.K., & Maddux, J.E. (1987). Relative contributions of protection motivation theory components in predicting exercise intentions and behavior. Health Psychology, 6, 453-466.
- Wurtele, S.K., Britcher, J.C., & Saslawsky, D.A. (1985). Relationships between locus of control, health value and preventive health behaviours among women. Journal of Research and Personality, 19, 271-278.
- Zaldivar, R.A.(1993). Polls finds Americans fatter, more stressed out. Philadelphia Enquirer. A1, A11.

Zimmerman, R.S., & Olson, K. (1994). AIDS-related risk behavior and behavior change in a sexually active, heterosexual sample: A test of three models of prevention. AIDS-Education and Prevention, 6(3), 189-204.

APPENDIX A

FORMS AND QUESTIONNAIRES

Appendix A1

PROJECT ON HEALTH BEHAVIOURS AND HEALTH

My name is Sabuh Adhami and I am currently doing my Masters in Psychology at the University of New England, Armidale. I am writing to you to invite you to participate in my research project which is being supervised within the Department of Psychology by Dr Jagdish Dua.

I am interested in studying women's smoking, eating, and exercise habits and factors that predict these habits. Participants will be asked to complete questionnaires designed to assess their health; and their views on health; and their smoking, exercise and dietary habits. In addition, participants will be given some information on the relationship between healthy behaviours and health. One week later after the information provided to the participants, they will be asked to fill in the some of the similar set of questionnaires they had completed in the beginning of the project. Three months later participants will again be asked to complete the same questionnaires, which they completed at the beginning and of the project. On each occasion the questionnaires will require approximately 20 minutes to complete.

I would like to emphasise that your participation is voluntary and that you are free to withdraw from the project at any time. There shall be total confidentiality regarding identification of volunteers during and after the project.

If you have any questions you wish to ask about the study, please feel free to contact me on 722145 or Dr Dua on 732546. Your participation in this study would be most appreciated.

Please indicate your willingness to participate in the study by filling in your name in space below along with your age.

Many Thanks


Sabuh Adhami

Name:

Age:

I (the participant) have read the information above any questions I have asked have been answered to my satisfaction. I agree to participate in this activity, realising that I may withdraw at any time. I agree that research data gathered for the study may be published, provided my name is not used.

Signature: _____

SCALE 'A'

I am interested in determining the degree to which you smoke, the type of food you eat and the degree to which you exercise. In relation to each I have given a number of statements. Please read each group of statements and indicate your smoking, eating and exercise behaviours by circling the answer next to the statement that best applies to you. Please give the answers which most accurately describe your smoking, eating and exercise behaviours or habits **OVER THE LAST THREE MONTHS.**

A. SMOKING

The following is designed to determine the **AVERAGE NUMBER OF CIGARETTES YOU SMOKED PER DAY OVER THE LAST THREE MONTHS.** Given that these days cigarettes come in varying degrees of tar content. I would also like to know the tar content of the cigarettes you smoke. Please indicate your smoking habit by selecting one of the following statements about the cigarette smoked and then circling the tar content opposite that statement. For example, if on an average you smoke '5' cigarettes per day and the tar content of the cigarette you smoke is '8 mg' then circle the 'medium' opposite statement No 4. If you do not smoke at all, circle number '1' next to the statement "I do not smoke at all".

	TAR CONTENT		
	Low (upto 4 mg)	Medium (5 mg - 12 mg)	High (13mg & higher)
On an average, each day			
1. I do not smoke at all.	Low	Medium	High
2. I smoke 1 to 2 cigarettes.	Low	Medium	High
3. I smoke 3 to 5 cigarettes.	Low	Medium	High
4. I smoke 6 to 10 cigarettes.	Low	Medium	High
5. I smoke 11 to 15 cigarettes.	Low	Medium	High
6. I smoke 16 to 20 cigarettes.	Low	Medium	High
7. I smoke more than 20 cigarettes.	Low	Medium	High

B. DIET

a. Saturated Fats:

Things such as fatty meat, chicken skin, whole milk, cheese, and eggs contain saturated fats. Indicate the average intake of saturated fats in your diet per day **OVER THE LAST THREE MONTHS**, by circling the number next to the statement that best describes your saturated fat intake.

On an average, each day

1. My diet is completely free of saturated fats.
2. My diet has very little saturated fats.
3. My diet has some saturated fats.
4. My diet has quite a lot of saturated fats.
5. My diet has high amount of saturated fats.

b. Vegetable and Fruits:

Indicate your average intake of vegetables and fruits per day **OVER THE LAST THREE MONTHS**, by circling the number next to the statement that best describes your intake of vegetables and fruits.

On an average, each day

1. I eat high amount of vegetables and fruits.
2. I eat quite a lot of vegetables and fruits.
3. I eat some vegetables and fruits.
4. I eat very little vegetables and fruits.
5. I do not eat any vegetables and fruits.

c. Wholegrains and cereals :

Indicate your average intake of wholegrains and cereals per day **OVER THE LAST THREE MONTHS**, by circling the number next to the statement that best describes your intake of wholegrains and cereals.

On an average, each day

1. I consume high amounts of wholegrains and cereals.
2. I consume quite a lot of wholegrains and cereals.
3. I consume some wholegrains and cereals.
4. I consume very little wholegrains and cereals.
5. I do not consume any wholegrains and cereals.

C. EXERCISE

Exercise is any physical activity like walking, swimming, cycling, jogging, aerobics, etc. engaged in for a continuous amount of time. Given below are statements designed to determine your average daily exercise **OVER THE LAST THREE MONTHS**. Indicate your answers by circling the number next to the statement that best describes your exercise behaviour.

On an average, each day

1. I exercise for approximately 40 minutes a day for at least 5 days a week.
2. I exercise for approximately 40 minutes a day for 3 to 4 days a week.
3. I exercise for approximately 30 minutes a day for at least 5 days a week.
4. I exercise for approximately 30 minutes a day for 3 to 4 days a week.

5. I exercise for approximately 20 minutes a day for at least 5 days a week.
6. I exercise for approximately 20 minutes a day for 3 to 4 days a week.
7. I exercise for approximately 40 minutes a day for 1 to 2 days a week.
8. I exercise for approximately 30 minutes a day for 1 to 2 days a week.
9. I exercise for approximately 20 minutes a day for 1 to 2 days a week.
10. I engage in little or no exercise .

Appendix A3

SCALE 'B'

Instructions :

Given below are a number of health related behaviours concerning smoking, diet, and exercise. For each of these categories indicate the behaviour you believe you can achieve in **THREE MONTHS TIME**. For each of the behaviours you have chosen please indicate on a scale of 0 to 100 the extent to which you believe you will be successful in achieving that behaviour in **THREE MONTHS TIME**.

0 indicates a very low belief in success and 100 indicates a very high belief; 60 would indicate a moderately high belief and 40 a moderately low belief.

For example if you believe that, in **THREE MONTHS TIME** you will be smoking, on an average, 3 to 5 cigarettes per day and that the average tar content of these cigarettes will be upto 4 mg, circle '**LOW**' against statement number 3 below. Indicate the confidence you have that you will be able to achieve this level of smoking (3-5 cigarettes per day) in **THREE MONTHS TIME** by marking a number 0 to 100 in the column titled 'Confidence'.

A. SMOKING

TAR CONTENT

	Low (upto 4 mg)	Medium (5mg - 12 mg)	High (13mg & high)	Confidence (0 to 100)
In three months time, on an average each day				
1. I will not be smoking at all	___	___	___	0____100
2. I will Smoke 1 to 2 cigarettes	Low	Medium	High	0____100
3. I will smoke 3 to 5 cigarettes	Low	Medium	High	0____100
4. I will smoke 6 to 10 cigarettes	Low	Medium	High	0____100
5. I will smoke 11 to 15 cigarettes	Low	Medium	High	0____100
6. I will smoke 16 to 20 cigarettes	Low	Medium	High	0____100
7. I will smoke more than 20 cigarettes	Low	Medium	High	0____100

B. DIET:

1. Saturated Fats:

Things such as fatty meat, chicken skin, whole milk, cheese, and eggs contain saturated fats. Indicate the average dietary fat intake you will achieve per day in **THREE MONTHS TIME**.

In three months time, on an average each day

CONFIDENCE

- | | |
|---|-----------|
| 1. My diet will be completely free of saturated fats. | 0_____100 |
| 2. My diet will have very little saturated fats. | 0_____100 |
| 3. My diet will have some saturated fats. | 0_____100 |
| 4. My diet will have quite a lot of saturated fats. | 0_____100 |
| 5. My diet will have high amount of saturated fats. | 0_____100 |

2. Vegetables and Fruits:

Indicate your average intake of vegetables and fruits you will achieve per day in **THREE MONTHS TIME** by circling the number next to the statement that you think will apply to you in three months time . Also indicate your confidence in achieving this level by writing a number from 0 to 100 against the statement.

In three months time, on an average each day

CONFIDENCE

- | | |
|---|-----------|
| 1. I will eat high amount of vegetables and fruits. | 0_____100 |
| 2. I will eat quite a lot of vegetables and fruits. | 0_____100 |
| 3. I will eat some vegetables and fruits. | 0_____100 |
| 4. I will eat very little vegetables and fruits. | 0_____100 |
| 5. I will not eat any vegetables and fruits. | 0_____100 |

3. Wholegrains and cereals:

Indicate the average intake of wholegrains and cereals you will achieve per day each day in **THREE MONTHS TIME**, by circling the number next to the statement that you think will apply to you in three months time. Indicate your confidence in achieving this level by writing a number from 0 to 100 against the statement.

CONFIDENCE

In three months time, on an average each day

1. I will consume high amount of wholegrains and cereals. 0_____100
2. I will consume quite a lot of wholegrains and cereals. 0_____100
3. I will consume some wholegrains and cereals. 0_____100
4. I will consume very little wholegrains and cereals. 0_____100
5. I will not consume any wholegrains and cereals 0_____100

C. EXERCISE :

Indicate the average daily exercise you will achieve per day each day in **THREE MONTHS TIME**, by circling the number next to the statement that you think will apply to you in three months time. Indicate your confidence in achieving this level by writing a number from 0 to 100 against the statement.

CONFIDENCE

In three months time, on an average each day

1. I will exercise for approximately 40 minutes a day for at least 5 days a week. 0_____100
2. I will exercise for approximately 40 minutes a day for at least 3 to 4 days a week. 0_____100
3. I will exercise for approximately 30 minutes a day for at least 5 days a week. 0_____100
4. I will exercise for approximately 30 minutes a day for at least 3 to 4 days a week. 0_____100
5. I will exercise for approximately 20 minutes a day for at least 5 days a week. 0_____100

6. I will exercise for approximately 20 minutes a day for at least 3 to 4 days a week. 0_____100
7. I will exercise for approximately 40 minutes a day for at least 1 to 2 days a week. 0_____100
8. I will exercise for approximately 30 minutes a day for at least 1 to 2 days a week. 0_____100
9. I will exercise for approximately 20 minutes a day for at least 1 to 2 days a week. 0_____100
10. I will engage in little or no exercise 0_____100

Appendix A4

SCALE 'C'

Please encircle the answer that best applies to you.

1. In the **LAST THREE MONTHS** how would you rate your physical health ?

Very Bad	Bad	Neither Bad Nor Good	Good	Very Good
1	2	3	4	5

2. In the **LAST THREE MONTHS** how many times have you suffered from each of the following illness or symptoms of illness.

	Not At All	Once	Two Times	Three Times	Four or More Times
Injuries/Accident	1	2	3	4	5
Infections (Bacterial or Viral)	1	2	3	4	5
Respiratory Illness	1	2	3	4	5
Gastrointestinal Illness	1	2	3	4	5
Headaches, Migraines or Neurological Disorder	1	2	3	4	5
Cardio Vascular Illness	1	2	3	4	5
Miscellaneous other Symptomatology or illness	1	2	3	4	5

SCALE 'D'

Please answer the following questions by circling the response which is most true for you.

1. How likely is it that you will have bad health in the **NEAR FUTURE?**

Very Likely Fairly Likely A Little Likely Not Likely At All

2. How concerned are you about having bad health in the **NEAR FUTURE?**

Very Concerned Fairly Concerned A Little Concerned Not Concerned At All

3. How serious is it to have bad health in the **NEAR FUTURE?**

Very Serious Fairly Serious A Little Serious Not Serious At All

4. How likely is it that you will have bad health in the **DISTANT FUTURE?**

Very Likely Fairly Likely A Little Likely Not Likely At All

5. How concerned are you about having bad health in the **DISTANT FUTURE?**

Very Concerned Fairly Concerned A Little Concerned Not Concerned At All

6. How serious is it to have bad health in the **DISTANT FUTURE?**

Very Serious Fairly Serious A Little Serious Not Serious At All

THE GENERAL HEALTH QUESTIONNAIRE

GHQ 28

David Goldberg

Please read this carefully.

We should like to know if you have had any medical complaints and how your health has been in general, *over the past few weeks*. Please answer ALL the questions on the following pages simply by underlining the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those that you had in the past.

It is important that you try to answer ALL the questions.

Thank you very much for your co-operation.

Have you recently

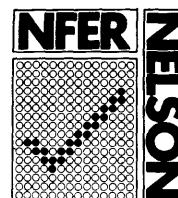
A1 – been feeling perfectly well and in good health?	Better than usual	Same as usual	Worse than usual	Much worse than usual
A2 – been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
A3 – been feeling run down and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
A4 – felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
A5 – been getting any pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A6 – been getting a feeling of tightness or pressure in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A7 – been having hot or cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual
B1 – lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
B2 – had difficulty in staying asleep once you are off?	Not at all	No more than usual	Rather more than usual	Much more than usual
B3 – felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
B4 – been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
B5 – been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
B6 – found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
B7 – been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual

Have you recently

C1 – been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
C2 – been taking longer over the things you do?	Quicker than usual	Same as usual	Longer than usual	Much longer than usual
C3 – felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
C4 – been satisfied with the way you've carried out your task?	More satisfied	About same as usual	Less satisfied than usual	Much less satisfied
C5 – felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
C6 – felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
C7 – been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual

D1 – been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
D2 – felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
D3 – felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
D4 – thought of the possibility that you might make away with yourself?	Definitely not	I don't think so	Has crossed my mind	Definitely have
D5 – found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
D6 – found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
D7 – found that the idea of taking your own life kept coming into your mind?	Definitely not	I don't think so	Has crossed my mind	Definitely has

A B C D TOTAL



SCALE 'F'

A number of statements are listed below. Indicate the extent to which you agree/disagree with each statement by circling the appropriate number opposite the statement. '1' means you strongly disagree whereas '6' means you strongly agree.

EXAMPLE	STRONGLY DISAGREE			STRONGLY AGREE		
I like being healthy	1	2	3	4	5	6

	STRONGLY DISAGREE			STRONGLY AGREE		
1. If I have bad health it is just bad luck.	1	2	3	4	5	6
2. If I take the right actions I can avoid having bad health.	1	2	3	4	5	6
3. No matter what I do, if I am going to have bad health I will.	1	2	3	4	5	6
4. I am in control of whether I have bad health or not.	1	2	3	4	5	6
5. If I take care of myself I can avoid having bad health.	1	2	3	4	5	6
6. I can prevent having bad health by regularly consulting a doctor.	1	2	3	4	5	6
7. The main thing which affects whether I have bad health is what I myself do.	1	2	3	4	5	6
8. If it's meant to be I will have bad health.	1	2	3	4	5	6

9. My family has a lot to do with my having or not having bad health.	1	2	3	4	5	6
10. It is my own behaviour which will determine how soon I recover from bad health.	1	2	3	4	5	6
11. Recovery from bad health depends on the good care given by other people such as doctors, nurses, and family.	1	2	3	4	5	6
12. Having a regular contact with my doctor is the best way to avoid having bad health.	1	2	3	4	5	6
13. Luck plays a big part in determining how quickly I recover from bad health.	1	2	3	4	5	6
14. If I have bad health it will be an accident.	1	2	3	4	5	6
15. To avoid having bad health I can only do what my doctor tells me	1	2	3	4	5	6
16. No matter what I do I cannot prevent bad health.	1	2	3	4	5	6
17. Health professionals control whether I will have bad health or not.	1	2	3	4	5	6
18. If I have bad health I am to blame.	1	2	3	4	5	6

INFORMATION

ABOUT

HEALTH RELATED BEHAVIOURS

AND

HEALTH

Dear Participant

I would like to thank you for your participation in my project on health and health related behaviours.

Now, as part of this project I am enclosing some relevant information regarding the relationship between health related behaviours (such as smoking, exercise, and diet) and health.

Though it is difficult to quantify the state of health, the World Health Organisation has defined it as:

"The state of complete physical, mental and social well being".

In today's world, most people, whether health professionals or people at large, are concerned about their health. Therefore, large number of studies have been devoted to finding out the major risk factors that contribute to poor health.

Researches and surveys have found that, among other factors, **cigarette smoking, lack of exercise and poor diet** are the major risk factors in the onset of cardiovascular diseases, hypertension, high blood pressure, diabetes, cancers, and other illnesses.

In the following pages I have included information about the **relationship between smoking and ill health, lack of exercise and ill health, and poor diet and ill health.**

A. SMOKING AND ILL HEALTH

Recent survey carried out by the National Heart Foundation of Australia stated that cigarette smoking is the major risk factor in the onset of disease like asthma, and cardiovascular disorders. Also World Health Organisation expert committee, stated that smoking is one of the principal causes of respiratory and other serious illnesses.

Data reveal that two million Australian still smoke and over 23,000 deaths occur as a result of smoking.

It is considered that Five times as many people die as a result of smoking than those who die due to alcohol abuse. And Four times as many people die as a result of smoking than those who die as a result of drug abuse.

The American Cancer Society has concluded that smoking accounts for approximately 125,000 deaths in the U.S. from cancer annually.

As a result of publicity about smoking and health there are signs of an over all decline in smoking however, most of this decline is amongst male smokers. Smoking rates in women have held steady for the past 20 years. There is some evidence that smoking has actually increased in teenage girls. These figures show that smoking is still a major problem in women. Some people argue that low tar content in cigarettes has less detrimental effect on health than high tar cigarettes. However, there is no agreement on this point as it is believed that people tend

to take more frequent and larger puffs when smoking a low tar cigarette.

I have included below some examples of health consequences as a result of smoking:

1. **Smoking causes damage to the lungs, heart, and cardiovascular system, the digestive system, immune system and reproductive system.**
2. It has been found that out of every 100 bladder cancers, 60 of them are due to smoking. Further, every cigarette lit decreases life expectancy by 52 minutes.
3. **Smoking increases the cholesterol levels in the blood, at the same time it decreases protective high density fats.** Thus, a person is more likely to have a heart attack as a result of smoking.
4. **Smoking hardens the walls of the arteries, making them less flexible and more prone to blockages.** The damaged arteries reduce the flow of blood to the brain that increases the chances of suffering a stroke.
6. Apart from staining the teeth and making them unattractive, **smokers have a much higher incidence of peridontal disease** than non smokers.
7. Smoking doubles the chances of **developing stomach ulcers.**

B. DIET AND ILL HEALTH

A recent survey carried out by the National Heart Foundation Australia has stated that poor dietary habits such as **too much intake of saturated fats and very less consumption of vegetables and fruits; and wholegrains and cereals**, lead to illnesses like heart disease, diabetes, asthma, gallstones, high blood pressure, and development of cancers.

Consumption of **high saturated fats** lead to **overweight and obesity** which is found to be one of the causes of coronary heart disease. It could also lead to sudden death.

Researches carried out by the Heart Foundation of Australia found that high intake of saturated fats adversely affects the glucose intolerance in the body, raises blood pressure, and affects the serum lipids that elevates the risk of coronary heart disease.

Diet high in fats increases the **cholesterol that leads to the reduction in the size of arteries**. Whereas a diet low in cholesterol reduces chances of the choking of arteries. The above mentioned survey found that **five million Australians over the age of 25 years have blood cholesterol levels over 5.5 mmol/l that puts them in the high risk range**.

It is now widely accepted that the relationship between serum cholesterol and risk of cardiac disorder is central to the link between diet and the disease .

It has also been found that **low consumption of vegetables and fruits, and wholegrains and cereals causes deficiency in vitamins, minerals, some**

proteins and fibre which are essential for a healthy body.

Studies carried out in United States have concluded that low consumption of vegetables and fruits increases the risk of some of the chronic diseases.

Moreover, low intake of diet containing fibre like wholegrain and cereals increases the risk of gastrointestinal disorders.

C. LACK OF EXERCISE AND ILL HEALTH

It is believed that easy and comfortable life style that involves little or no physical activity is one of the main cause of the impairment in normal body functions. It has been found that such common and serious medical problems as coronary artery disease, hypertension, obesity and lower back problems are attributable to the lack of exercise.

Research carried out by the medical community and health psychologists has concluded that lack of exercise leads to poor mental and physical health.

Some information regarding detrimental effects on health caused due to lack of exercise is given below:

Lack of exercise increases the risk of coronary heart disorders in people.

Lack of exercise decreases the efficiency of cardio-respiratory system in people.

Lack of exercise reduces the physical work capacity.

Lack of exercise also leads to over weight and obesity that is found to be detrimental for the general health of people.

Researchers have examined that lack of exercise is to some extent the cause of other illnesses like anxiety, depression, etc.

This information is provided to you by **Sabuh Adhami**. If you have any queries please contact me at the phone number : **73-2568** or Dr. Dua at : **73-2546**

Many thanks



Sabuh Adhami

PERSONAL PARTICULARS FORM

NAME:-----

AGE :-----

JOB PARTICULARS :*(please circle the appropriate answer)*

1. Administration
2. Academic
3. Library
4. Other work at the university
5. Student
6. Other (please specify)-----

ADDRESS or CONTACT PHONE No-----

APPENDIX B

RAW DATA

Number of valid observations (listwise) = 37.00

Variable TAR2 tar intake tm2

Mean	.149	S.E. Mean	.053
Std Dev	.459	Variance	.210
Kurtosis	9.597	S.E. Kurt	.552
Skewness	3.194	S.E. Skew	.279
Minimum	.00	Maximum	2.00

Valid observations - 74 Missing observations - 41

Variable TARSEF tar self efficacy

Mean	.221	S.E. Mean	.058
Std Dev	.590	Variance	.349
Kurtosis	7.311	S.E. Kurt	.469
Skewness	2.791	S.E. Skew	.237
Minimum	0	Maximum	3

Valid observations - 104 Missing observations - 11

Variable TAR health behaviour

Mean	.307	S.E. Mean	.062
Std Dev	.667	Variance	.445
Kurtosis	3.445	S.E. Kurt	.449
Skewness	2.108	S.E. Skew	.226
Minimum	0	Maximum	3

Valid observations - 114 Missing observations - 1

Variable GHQD7 GHQD7

Mean	.532	S.E. Mean	.062
Std Dev	.646	Variance	.418
Kurtosis	2.237	S.E. Kurt	.459
Skewness	1.240	S.E. Skew	.231
Minimum	0	Maximum	3

Valid observations - 109 Missing observations - 6

Variable GHQD6 ghqd6

Mean	.550	S.E. Mean	.068
Std Dev	.713	Variance	.509
Kurtosis	2.101	S.E. Kurt	.459
Skewness	1.378	S.E. Skew	.231
Minimum	0	Maximum	3

. Valid observations - 109 Missing observations - 6

Variable GHQD4 ghqd4
Mean .578 S.E. Mean .067
Std Dev .698 Variance .487
Kurtosis 1.257 S.E. Kurt .459
Skewness 1.132 S.E. Skew .231
Minimum 0 Maximum 3

Valid observations - 109 Missing observations - 6

Variable GHQD5 ghqd5
Mean .587 S.E. Mean .064
Std Dev .670 Variance .448
Kurtosis .499 S.E. Kurt .459
Skewness .900 S.E. Skew .231
Minimum 0 Maximum 3

Valid observations - 109 Missing observations - 6

Variable GHQD3 ghqd3
Mean .697 S.E. Mean .084
Std Dev .877 Variance .769
Kurtosis 1.547 S.E. Kurt .459
Skewness 1.308 S.E. Skew .231
Minimum 0 Maximum 4

Valid observations - 109 Missing observations - 6

Variable GHQA7 ghqa7
Mean .759 S.E. Mean .084
Std Dev .874 Variance .764
Kurtosis .995 S.E. Kurt .461
Skewness 1.092 S.E. Skew .233
Minimum 0 Maximum 4

Valid observations - 108 Missing observations - 7

Variable GHQD2 ghqd2
Mean .817 S.E. Mean .087
Std Dev .904 Variance .818
Kurtosis 1.064 S.E. Kurt .459
Skewness 1.139 S.E. Skew .231
Minimum 0 Maximum 4

Valid observations - 109 Missing observations - 6

Variable GHQC1 ghqc1
Mean .945 S.E. Mean .071
Std Dev .743 Variance .552
Kurtosis -.314 S.E. Kurt .459
Skewness .365 S.E. Skew .231
Minimum 0 Maximum 3

Valid observations - 109 Missing observations - 6

Variable GHQA4 ghqa4
Mean .954 S.E. Mean .086
Std Dev .896 Variance .803
Kurtosis -.174 S.E. Kurt .459
Skewness .720 S.E. Skew .231
Minimum 0 Maximum 3

Valid observations - 109 Missing observations - 6

Variable GHQD1 ghqd1
Mean .981 S.E. Mean .085
Std Dev .886 Variance .785
Kurtosis -.538 S.E. Kurt .461

Skewness	.530	S.E. Skew	.233
Minimum	0	Maximum	3

Valid observations - 108 Missing observations - 7

Variable	GHQB5	ghqb5		
Mean	1.000		S.E. Mean	.102
Std Dev	1.063		Variance	1.130
Kurtosis	.980		S.E. Kurt	.459
Skewness	1.131		S.E. Skew	.231
Minimum	0		Maximum	4

Valid observations - 109 Missing observations - 6

Variable	CARDIO	cardiovascular illness		
Mean	1.036		S.E. Mean	.036
Std Dev	.380		Variance	.144
Kurtosis	111.000		S.E. Kurt	.455
Skewness	10.536		S.E. Skew	.229
Minimum	1		Maximum	5

Valid observations - 111 Missing observations - 4

Variable	GHQA2	ghqa2		
Mean	1.165		S.E. Mean	.091
Std Dev	.948		Variance	.898
Kurtosis	-.652		S.E. Kurt	.459
Skewness	.459		S.E. Skew	.231
Minimum	0		Maximum	3

Valid observations - 109 Missing observations - 6

Variable	GHQB2	ghqb2		
Mean	1.229		S.E. Mean	.106
Std Dev	1.111		Variance	1.234
Kurtosis	.241		S.E. Kurt	.459
Skewness	.894		S.E. Skew	.231
Minimum	0		Maximum	4

Valid observations - 109 Missing observations - 6

Variable	GHQA6	ghqa6		
Mean	1.239		S.E. Mean	.102
Std Dev	1.062		Variance	1.128
Kurtosis	-.065		S.E. Kurt	.459
Skewness	.641		S.E. Skew	.231
Minimum	0		Maximum	4

Valid observations - 109 Missing observations - 6

Variable	SMKSE2	smoke self efficacy tm2		
Mean	1.257		S.E. Mean	.117
Std Dev	1.008		Variance	1.015
Kurtosis	19.062		S.E. Kurt	.552
Skewness	4.330		S.E. Skew	.279
Minimum	1.00		Maximum	7.00

Valid observations - 74 Missing observations - 41

Variable	GHQC6	ghqc6		
Mean	1.275		S.E. Mean	.081
Std Dev	.848		Variance	.720
Kurtosis	-.363		S.E. Kurt	.459
Skewness	.363		S.E. Skew	.231
Minimum	0		Maximum	3

Valid observations - 109 Missing observations - 6

Variable GHQB1 ghqb1

Mean	1.284	S.E. Mean	.107
Std Dev	1.115	Variance	1.242
Kurtosis	-.198	S.E. Kurt	.459
Skewness	.681	S.E. Skew	.231
Minimum	0	Maximum	4

Valid observations - 109 Missing observations - 6

Variable SMKNTOT2 total smoke into tar tml

Mean	1.336	S.E. Mean	.307
Std Dev	3.261	Variance	10.636
Kurtosis	6.408	S.E. Kurt	.451
Skewness	2.650	S.E. Skew	.227
Minimum	.00	Maximum	14.00

Valid observations - 113 Missing observations - 2

Variable INJACCI injuries / accident

Mean	1.342	S.E. Mean	.072
Std Dev	.757	Variance	.573
Kurtosis	7.550	S.E. Kurt	.455
Skewness	2.667	S.E. Skew	.229
Minimum	1	Maximum	5

Valid observations - 111 Missing observations - 4

Variable GHQC4 ghqc4

Mean	1.358	S.E. Mean	.078
Std Dev	.811	Variance	.658
Kurtosis	-.452	S.E. Kurt	.459
Skewness	.102	S.E. Skew	.231
Minimum	0	Maximum	3

Valid observations - 109 Missing observations - 6

Variable GHQC5 ghqc5

Mean	1.358	S.E. Mean	.078
Std Dev	.811	Variance	.658
Kurtosis	-.375	S.E. Kurt	.459
Skewness	.208	S.E. Skew	.231
Minimum	0	Maximum	3

Valid observations - 109 Missing observations - 6

Variable GHQA5 ghqa5

Mean	1.361	S.E. Mean	.101
Std Dev	1.054	Variance	1.111
Kurtosis	.050	S.E. Kurt	.461
Skewness	.643	S.E. Skew	.233
Minimum	0	Maximum	4

Valid observations - 108 Missing observations - 7

Variable GASTRO gastrointestinal illness

Mean	1.382	S.E. Mean	.089
Std Dev	.928	Variance	.862
Kurtosis	7.489	S.E. Kurt	.457
Skewness	2.805	S.E. Skew	.230
Minimum	1	Maximum	5

Valid observations - 110 Missing observations - 5

Variable GHQA1 ghqa1

Mean	1.385	S.E. Mean	.068
Std Dev	.706	Variance	.498
Kurtosis	-.161	S.E. Kurt	.459
Skewness	.095	S.E. Skew	.231
Minimum	0	Maximum	3

Valid observations - 109 Missing observations - 6

Variable RESPILL respiratory illness

Mean	1.393	S.E. Mean	.080
Std Dev	.842	Variance	.709
Kurtosis	6.654	S.E. Kurt	.453
Skewness	2.557	S.E. Skew	.228
Minimum	1	Maximum	5

Valid observations - 112 Missing observations - 3

Variable SMKSEF smok self efficacy

Mean	1.438	S.E. Mean	.123
Std Dev	1.307	Variance	1.708
Kurtosis	9.843	S.E. Kurt	.453
Skewness	3.234	S.E. Skew	.228
Minimum	1	Maximum	7

Valid observations - 112 Missing observations - 3

Variable GHQC3 ghqc3

Mean	1.440	S.E. Mean	.070
Std Dev	.726	Variance	.527
Kurtosis	-.192	S.E. Kurt	.459
Skewness	.138	S.E. Skew	.231
Minimum	0	Maximum	3

Valid observations - 109 Missing observations - 6

Variable GHQB7 ghqb7

Mean	1.459	S.E. Mean	.101
Std Dev	1.059	Variance	1.121
Kurtosis	-.395	S.E. Kurt	.459
Skewness	.420	S.E. Skew	.231
Minimum	0	Maximum	4

Valid observations - 109 Missing observations - 6

Variable GHQC2 ghqc2

Mean	1.459	S.E. Mean	.060
Std Dev	.631	Variance	.399
Kurtosis	-.127	S.E. Kurt	.459
Skewness	.383	S.E. Skew	.231
Minimum	0	Maximum	3

Valid observations - 109 Missing observations - 6

Variable GHQC7 ghqc7

Mean	1.486	S.E. Mean	.083
Std Dev	.867	Variance	.752
Kurtosis	-.633	S.E. Kurt	.459
Skewness	.000	S.E. Skew	.231
Minimum	0	Maximum	3

Valid observations - 109 Missing observations - 6

Variable GHQA3 ghqa3

Mean	1.519	S.E. Mean	.095
Std Dev	.990	Variance	.981
Kurtosis	-.548	S.E. Kurt	.461
Skewness	.330	S.E. Skew	.233
Minimum	0	Maximum	4

Valid observations - 108 Missing observations - 7

Variable MISCELL miscellaneous other symptomatology or il

Mean	1.523	S.E. Mean	.113
Std Dev	1.183	Variance	1.400
Kurtosis	3.472	S.E. Kurt	.459
Skewness	2.199	S.E. Skew	.231
Minimum	1	Maximum	5

Valid observations - 109 Missing observations - 6

Variable GHQB4 ghqb4

Mean	1.550	S.E. Mean	.090
Std Dev	.938	Variance	.879
Kurtosis	-.028	S.E. Kurt	.459
Skewness	.332	S.E. Skew	.231
Minimum	0	Maximum	4

Valid observations - 109 Missing observations - 6

Variable GHQB6 ghqb6

Mean	1.550	S.E. Mean	.102
Std Dev	1.067	Variance	1.139
Kurtosis	-.721	S.E. Kurt	.459
Skewness	.146	S.E. Skew	.231
Minimum	0	Maximum	4

Valid observations - 109 Missing observations - 6

Variable INFECT infections

Mean	1.649	S.E. Mean	.083
Std Dev	.870	Variance	.757
Kurtosis	2.623	S.E. Kurt	.455
Skewness	1.512	S.E. Skew	.229
Minimum	1	Maximum	5

Valid observations - 111 Missing observations - 4

Variable SERDIST2 serous distant health belief tm2

Mean	1.703	S.E. Mean	.099
Std Dev	.856	Variance	.732
Kurtosis	.237	S.E. Kurt	.552
Skewness	1.025	S.E. Skew	.279
Minimum	1.00	Maximum	4.00

Valid observations - 74 Missing observations - 41

Variable GHQB3 ghqb3

Mean	1.706	S.E. Mean	.100
Std Dev	1.039	Variance	1.080
Kurtosis	-.434	S.E. Kurt	.459
Skewness	.164	S.E. Skew	.231
Minimum	0	Maximum	4

Valid observations - 109 Missing observations - 6

Variable SERNER2 serous near helth belief tm2

Mean	1.716	S.E. Mean	.106
Std Dev	.914	Variance	.836
Kurtosis	.049	S.E. Kurt	.552
Skewness	1.043	S.E. Skew	.279
Minimum	1.00	Maximum	4.00

Valid observations - 74 Missing observations - 41

Variable SMOKE health behaviour

Mean	1.719	S.E. Mean	.157
Std Dev	1.675	Variance	2.805
Kurtosis	4.087	S.E. Kurt	.449
Skewness	2.318	S.E. Skew	.226
Minimum	1	Maximum	7

Valid observations - 114 Missing observations - 1

Variable HLC2.17 hlctm2 q17

Mean	1.720	S.E. Mean	.119
Std Dev	1.034	Variance	1.069
Kurtosis	4.083	S.E. Kurt	.548

Skewness	1.873	S.E. Skew	.277
Minimum	1.00	Maximum	6.00
Valid observations -	75	Missing observations -	40

Variable	HLC17	health professional controls my health	
Mean	1.745	S.E. Mean	.111
Std Dev	1.169	Variance	1.366
Kurtosis	2.427	S.E. Kurt	.457
Skewness	1.742	S.E. Skew	.230
Minimum	1	Maximum	6
Valid observations -	110	Missing observations -	5

Variable	VEGFR2	vege fruit tm2	
Mean	1.747	S.E. Mean	.085
Std Dev	.737	Variance	.543
Kurtosis	-.133	S.E. Kurt	.548
Skewness	.651	S.E. Skew	.277
Minimum	1.00	Maximum	4.00
Valid observations -	75	Missing observations -	40

Variable	VGFRSEF	vege fruit self efficacy	
Mean	1.804	S.E. Mean	.063
Std Dev	.669	Variance	.448
Kurtosis	.817	S.E. Kurt	.453
Skewness	.617	S.E. Skew	.228
Minimum	1	Maximum	4
Valid observations -	112	Missing observations -	3

Variable	SERNRFU	serious near future	
Mean	1.919	S.E. Mean	.085
Std Dev	.896	Variance	.802
Kurtosis	-.293	S.E. Kurt	.455
Skewness	.702	S.E. Skew	.229
Minimum	1	Maximum	4
Valid observations -	111	Missing observations -	4

Variable	HLC2.13	hlctm2 q13	
Mean	1.933	S.E. Mean	.121
Std Dev	1.044	Variance	1.090
Kurtosis	.991	S.E. Kurt	.548
Skewness	1.234	S.E. Skew	.277
Minimum	1.00	Maximum	5.00
Valid observations -	75	Missing observations -	40

Variable	SERDIST	seriousness distant future	
Mean	1.955	S.E. Mean	.087
Std Dev	.913	Variance	.833
Kurtosis	-.529	S.E. Kurt	.457
Skewness	.607	S.E. Skew	.230
Minimum	1	Maximum	4
Valid observations -	110	Missing observations -	5

Variable	HLC2.16	hlctm2 q16	
Mean	1.960	S.E. Mean	.135
Std Dev	1.168	Variance	1.363
Kurtosis	1.452	S.E. Kurt	.548
Skewness	1.336	S.E. Skew	.277
Minimum	1.00	Maximum	6.00
Valid observations -	75	Missing observations -	40

Variable	SMKNTOT1	total of smoke and tar tml	
----------	----------	----------------------------	--

Mean	1.973	S.E. Mean	.207
Std Dev	2.202	Variance	4.848
Kurtosis	3.314	S.E. Kurt	.451
Skewness	2.160	S.E. Skew	.227
Minimum	1.00	Maximum	9.00

Valid observations - 113 Missing observations - 2

Variable HLC2.01 hlctm2 q1

Mean	2.000	S.E. Mean	.142
Std Dev	1.230	Variance	1.514
Kurtosis	1.199	S.E. Kurt	.548
Skewness	1.297	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable HLC2.15 hlctm2 q15

Mean	2.067	S.E. Mean	.132
Std Dev	1.143	Variance	1.306
Kurtosis	.123	S.E. Kurt	.548
Skewness	.982	S.E. Skew	.277
Minimum	1.00	Maximum	5.00

Valid observations - 75 Missing observations - 40

Variable HLC13 recovery depends on luck

Mean	2.073	S.E. Mean	.116
Std Dev	1.217	Variance	1.481
Kurtosis	1.381	S.E. Kurt	.457
Skewness	1.259	S.E. Skew	.230
Minimum	1	Maximum	6

Valid observations - 110 Missing observations - 5

Variable WHGRCL2 wholegrain & cereal tm2

Mean	2.093	S.E. Mean	.085
Std Dev	.738	Variance	.545
Kurtosis	-.647	S.E. Kurt	.548
Skewness	.057	S.E. Skew	.277
Minimum	1.00	Maximum	4.00

Valid observations - 75 Missing observations - 40

Variable HLC16 cannot prevent bad health

Mean	2.164	S.E. Mean	.128
Std Dev	1.345	Variance	1.808
Kurtosis	-.213	S.E. Kurt	.457
Skewness	.941	S.E. Skew	.230
Minimum	1	Maximum	6

Valid observations - 110 Missing observations - 5

Variable PHYHELHN physical health new

Mean	2.191	S.E. Mean	.091
Std Dev	.953	Variance	.908
Kurtosis	.331	S.E. Kurt	.457
Skewness	.772	S.E. Skew	.230
Minimum	1.00	Maximum	5.00

Valid observations - 110 Missing observations - 5

Variable VEGE vegetable and fruits

Mean	2.202	S.E. Mean	.081
Std Dev	.864	Variance	.747
Kurtosis	-.708	S.E. Kurt	.449
Skewness	.182	S.E. Skew	.226
Minimum	1	Maximum	4

Valid observations - 114 Missing observations - 1

Variable HLC2.03 hlctm2 q3

Mean	2.213	S.E. Mean	.155
Std Dev	1.339	Variance	1.792
Kurtosis	.125	S.E. Kurt	.548
Skewness	1.056	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable HLC3 hlcq3

Mean	2.266	S.E. Mean	.135
Std Dev	1.405	Variance	1.975
Kurtosis	.544	S.E. Kurt	.459
Skewness	1.124	S.E. Skew	.231
Minimum	1	Maximum	6

Valid observations - 109 Missing observations - 6

Variable HLC15 avoid bad health do what doctor says

Mean	2.275	S.E. Mean	.121
Std Dev	1.268	Variance	1.609
Kurtosis	-.238	S.E. Kurt	.459
Skewness	.796	S.E. Skew	.231
Minimum	1	Maximum	6

Valid observations - 109 Missing observations - 6

Variable HLC2.08 hlctm2 q8

Mean	2.373	S.E. Mean	.157
Std Dev	1.363	Variance	1.859
Kurtosis	-.124	S.E. Kurt	.548
Skewness	.866	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable SATFAT2 saturated fat tm2

Mean	2.427	S.E. Mean	.071
Std Dev	.619	Variance	.383
Kurtosis	-.197	S.E. Kurt	.548
Skewness	.111	S.E. Skew	.277
Minimum	1.00	Maximum	4.00

Valid observations - 75 Missing observations - 40

Variable HLC8 if it's meant i will have bad health

Mean	2.440	S.E. Mean	.136
Std Dev	1.417	Variance	2.008
Kurtosis	-.394	S.E. Kurt	.459
Skewness	.770	S.E. Skew	.231
Minimum	1	Maximum	6

Valid observations - 109 Missing observations - 6

Variable WGRSE wholegrain & cereal self efficacy

Mean	2.472	S.E. Mean	.179
Std Dev	1.862	Variance	3.467
Kurtosis	74.637	S.E. Kurt	.461
Skewness	7.914	S.E. Skew	.233
Minimum	1	Maximum	20

Valid observations - 108 Missing observations - 7

Variable HLC14 if bad health will be an accident

Mean	2.486	S.E. Mean	.136
Std Dev	1.425	Variance	2.030
Kurtosis	-.243	S.E. Kurt	.459
Skewness	.811	S.E. Skew	.231
Minimum	1	Maximum	6

Valid observations - 109 Missing observations - 6

Variable HLC1 health locus of control q1

Mean	2.495	S.E. Mean	.142
Std Dev	1.482	Variance	2.197
Kurtosis	-.244	S.E. Kurt	.459
Skewness	.800	S.E. Skew	.231
Minimum	1	Maximum	6

Valid observations - 109 Missing observations - 6

Variable SFSEF sat fat self efficacy

Mean	2.513	S.E. Mean	.063
Std Dev	.670	Variance	.448
Kurtosis	.913	S.E. Kurt	.451
Skewness	.405	S.E. Skew	.227
Minimum	1	Maximum	5

Valid observations - 113 Missing observations - 2

Variable HLC2.12 hlctm2 q12

Mean	2.533	S.E. Mean	.155
Std Dev	1.339	Variance	1.793
Kurtosis	-.041	S.E. Kurt	.548
Skewness	.881	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable HLC2.14 hlctm2 q14

Mean	2.533	S.E. Mean	.155
Std Dev	1.339	Variance	1.793
Kurtosis	-.347	S.E. Kurt	.548
Skewness	.673	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable CERNDIS2 concern distant tm2

Mean	2.600	S.E. Mean	.122
Std Dev	1.053	Variance	1.108
Kurtosis	-1.053	S.E. Kurt	.548
Skewness	-.414	S.E. Skew	.277
Minimum	1.00	Maximum	4.00

Valid observations - 75 Missing observations - 40

Variable COCERDIS concern distant future

Mean	2.640	S.E. Mean	.096
Std Dev	1.016	Variance	1.033
Kurtosis	-.969	S.E. Kurt	.455
Skewness	-.335	S.E. Skew	.229
Minimum	1	Maximum	4

Valid observations - 111 Missing observations - 4

Variable CEREAL wholegrain and cereals

Mean	2.640	S.E. Mean	.085
Std Dev	.904	Variance	.816
Kurtosis	-.613	S.E. Kurt	.449
Skewness	.193	S.E. Skew	.226
Minimum	1	Maximum	5

Valid observations - 114 Missing observations - 1

Variable HLC12 regular contact with doctor avoids bad h

Mean	2.645	S.E. Mean	.130
Std Dev	1.365	Variance	1.864
Kurtosis	-.583	S.E. Kurt	.457

Skewness	.514	S.E. Skew	.230
Minimum	1	Maximum	6

Valid observations - 110 Missing observations - 5

Variable HLC2.06 hlctm2 q6

Mean	2.667	S.E. Mean	.158
Std Dev	1.369	Variance	1.874
Kurtosis	-.317	S.E. Kurt	.548
Skewness	.565	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable HLC2.09 hlctm2 q9

Mean	2.693	S.E. Mean	.154
Std Dev	1.335	Variance	1.783
Kurtosis	-.807	S.E. Kurt	.548
Skewness	.376	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable HLC9 family is to be blamed for bad health

Mean	2.826	S.E. Mean	.152
Std Dev	1.592	Variance	2.534
Kurtosis	-.823	S.E. Kurt	.459
Skewness	.474	S.E. Skew	.231
Minimum	1	Maximum	6

Valid observations - 109 Missing observations - 6

Variable HEDMIG headaches migraines neuro disorders

Mean	2.829	S.E. Mean	.151
Std Dev	1.595	Variance	2.543
Kurtosis	-1.482	S.E. Kurt	.455
Skewness	.217	S.E. Skew	.229
Minimum	1	Maximum	5

Valid observations - 111 Missing observations - 4

Variable JOB2 job as time two

Mean	2.901	S.E. Mean	.182
Std Dev	1.916	Variance	3.672
Kurtosis	-1.620	S.E. Kurt	.455
Skewness	.302	S.E. Skew	.229
Minimum	1	Maximum	6

Valid observations - 111 Missing observations - 4

Variable FAT saturated fats

Mean	2.947	S.E. Mean	.070
Std Dev	.751	Variance	.564
Kurtosis	-.038	S.E. Kurt	.449
Skewness	.470	S.E. Skew	.226
Minimum	2	Maximum	5

Valid observations - 114 Missing observations - 1

Variable CERNEAR2 concern near heal belief tm2

Mean	2.960	S.E. Mean	.125
Std Dev	1.084	Variance	1.174
Kurtosis	-.788	S.E. Kurt	.548
Skewness	-.705	S.E. Skew	.277
Minimum	1.00	Maximum	4.00

Valid observations - 75 Missing observations - 40

Variable JOB occupation

Mean	2.974	S.E. Mean	.182
Std Dev	1.939	Variance	3.760
Kurtosis	-1.648	S.E. Kurt	.449
Skewness	.245	S.E. Skew	.226
Minimum	1	Maximum	6

Valid observations - 114 Missing observations - 1

Variable LIKDIST2 likely distant tm2

Mean	3.000	S.E. Mean	.091
Std Dev	.782	Variance	.611
Kurtosis	.590	S.E. Kurt	.555
Skewness	-.717	S.E. Skew	.281
Minimum	1.00	Maximum	4.00

Valid observations - 73 Missing observations - 42

Variable HLC6 hlcq6

Mean	3.018	S.E. Mean	.156
Std Dev	1.631	Variance	2.660
Kurtosis	-.949	S.E. Kurt	.457
Skewness	.423	S.E. Skew	.230
Minimum	1	Maximum	6

Valid observations - 110 Missing observations - 5

Variable CONRFU concern near future

Mean	3.027	S.E. Mean	.098
Std Dev	1.035	Variance	1.071
Kurtosis	-.943	S.E. Kurt	.453
Skewness	-.600	S.E. Skew	.228
Minimum	1	Maximum	4

Valid observations - 112 Missing observations - 3

Variable LIKDIST likelyhood distant future

Mean	3.036	S.E. Mean	.076
Std Dev	.805	Variance	.647
Kurtosis	-.283	S.E. Kurt	.453
Skewness	-.488	S.E. Skew	.228
Minimum	1	Maximum	4

Valid observations - 112 Missing observations - 3

Variable HLC18 if bad health i am to blame

Mean	3.191	S.E. Mean	.165
Std Dev	1.732	Variance	3.000
Kurtosis	-1.386	S.E. Kurt	.457
Skewness	.034	S.E. Skew	.230
Minimum	1	Maximum	6

Valid observations - 110 Missing observations - 5

Variable HLC2.11 hlctm2 q11

Mean	3.253	S.E. Mean	.145
Std Dev	1.253	Variance	1.570
Kurtosis	-.369	S.E. Kurt	.548
Skewness	.392	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable HLC2.18 tm2 q18

Mean	3.267	S.E. Mean	.205
Std Dev	1.773	Variance	3.144
Kurtosis	-1.331	S.E. Kurt	.548
Skewness	.046	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable LIKNERFU likelyhood near health belief

Mean	3.384	S.E. Mean	.076
Std Dev	.808	Variance	.653
Kurtosis	.913	S.E. Kurt	.453
Skewness	-1.231	S.E. Skew	.228
Minimum	1	Maximum	4

Valid observations - 112 Missing observations - 3

Variable HLC11 recovery depends on other people

Mean	3.468	S.E. Mean	.127
Std Dev	1.330	Variance	1.770
Kurtosis	-.681	S.E. Kurt	.459
Skewness	-.194	S.E. Skew	.231
Minimum	1	Maximum	6

Valid observations - 109 Missing observations - 6

Variable LIKNER2 likely near future time2

Mean	3.479	S.E. Mean	.092
Std Dev	.784	Variance	.614
Kurtosis	1.431	S.E. Kurt	.555
Skewness	-1.265	S.E. Skew	.281
Minimum	1.00	Maximum	5.00

Valid observations - 73 Missing observations - 42

Variable EXSEFF exercise self efficacy time one

Mean	3.562	S.E. Mean	.255
Std Dev	2.694	Variance	7.257
Kurtosis	-.107	S.E. Kurt	.453
Skewness	.979	S.E. Skew	.228
Minimum	1	Maximum	10

Valid observations - 112 Missing observations - 3

Variable PHYHEALTH physical health

Mean	3.777	S.E. Mean	.089
Std Dev	.946	Variance	.896
Kurtosis	.246	S.E. Kurt	.453
Skewness	-.705	S.E. Skew	.228
Minimum	1	Maximum	5

Valid observations - 112 Missing observations - 3

Variable EXER2 exercise self efficacy time two

Mean	3.907	S.E. Mean	.321
Std Dev	2.776	Variance	7.707
Kurtosis	-.499	S.E. Kurt	.548
Skewness	.858	S.E. Skew	.277
Minimum	1.00	Maximum	10.00

Valid observations - 75 Missing observations - 40

Variable HLC2.04 hlctm2 q4

Mean	4.253	S.E. Mean	.152
Std Dev	1.316	Variance	1.732
Kurtosis	-.332	S.E. Kurt	.548
Skewness	-.485	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable HLC4 hlcq4

Mean	4.418	S.E. Mean	.123
Std Dev	1.288	Variance	1.658
Kurtosis	-.129	S.E. Kurt	.457
Skewness	-.669	S.E. Skew	.230
Minimum	1	Maximum	6

Valid observations - 110 Missing observations - 5

Variable HLC2.07 hlctm2 q7

Mean	4.613	S.E. Mean	.149
Std Dev	1.293	Variance	1.673
Kurtosis	1.069	S.E. Kurt	.548
Skewness	-1.200	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable HLC2.10 hlctm2 q10

Mean	4.640	S.E. Mean	.130
Std Dev	1.123	Variance	1.261
Kurtosis	1.880	S.E. Kurt	.548
Skewness	-1.244	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable HLC7 what i myself do affects health

Mean	4.682	S.E. Mean	.112
Std Dev	1.173	Variance	1.375
Kurtosis	.705	S.E. Kurt	.457
Skewness	-.883	S.E. Skew	.230
Minimum	1	Maximum	6

Valid observations - 110 Missing observations - 5

Variable SEVDEPRS severe depression time one

Mean	4.692	S.E. Mean	.449
Std Dev	4.641	Variance	21.536
Kurtosis	-.167	S.E. Kurt	.463
Skewness	.746	S.E. Skew	.234
Minimum	.00	Maximum	18.00

Valid observations - 107 Missing observations - 8

Variable HLC10 own behavior detemines recovery

Mean	4.725	S.E. Mean	.114
Std Dev	1.193	Variance	1.424
Kurtosis	1.894	S.E. Kurt	.459
Skewness	-1.315	S.E. Skew	.231
Minimum	1	Maximum	6

Valid observations - 109 Missing observations - 6

Variable HLC2.05 hlctm2 q5

Mean	4.813	S.E. Mean	.124
Std Dev	1.074	Variance	1.154
Kurtosis	1.251	S.E. Kurt	.548
Skewness	-1.027	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable HLC5 hlcq5

Mean	4.818	S.E. Mean	.101
Std Dev	1.060	Variance	1.123
Kurtosis	1.260	S.E. Kurt	.457
Skewness	-1.089	S.E. Skew	.230
Minimum	1	Maximum	6

Valid observations - 110 Missing observations - 5

Variable HLC2.02 hlctm2 q2

Mean	4.880	S.E. Mean	.131
Std Dev	1.139	Variance	1.296
Kurtosis	1.997	S.E. Kurt	.548

Skewness	-1.283	S.E. Skew	.277
Minimum	1.00	Maximum	6.00

Valid observations - 75 Missing observations - 40

Variable EXRCIS health behaviour exercise

Mean	4.895	S.E. Mean	.314
Std Dev	3.348	Variance	11.210
Kurtosis	-1.363	S.E. Kurt	.449
Skewness	.417	S.E. Skew	.226
Minimum	1	Maximum	10

Valid observations - 114 Missing observations - 1

Variable HLC2 hlcq2

Mean	5.018	S.E. Mean	.102
Std Dev	1.066	Variance	1.137
Kurtosis	.616	S.E. Kurt	.457
Skewness	-1.054	S.E. Skew	.230
Minimum	2	Maximum	6

Valid observations - 110 Missing observations - 5

Variable HELBEL2D total health belief distant time two

Mean	7.419	S.E. Mean	.232
Std Dev	1.825	Variance	3.329
Kurtosis	.646	S.E. Kurt	.599
Skewness	-.084	S.E. Skew	.304
Minimum	3.00	Maximum	12.00

Valid observations - 62 Missing observations - 53

Variable HELBEL1D likedist and serdist and concerdist tml

Mean	7.593	S.E. Mean	.197
Std Dev	2.046	Variance	4.188
Kurtosis	-.571	S.E. Kurt	.461
Skewness	-.046	S.E. Skew	.233
Minimum	3.00	Maximum	12.00

Valid observations - 108 Missing observations - 7

Variable DIET total of fats veges & whgrains tml

Mean	7.796	S.E. Mean	.185
Std Dev	1.965	Variance	3.860
Kurtosis	-.357	S.E. Kurt	.451
Skewness	.225	S.E. Skew	.227
Minimum	4.00	Maximum	13.00

Valid observations - 113 Missing observations - 2

Variable HELBEL2N total health belief time two near future

Mean	8.312	S.E. Mean	.195
Std Dev	2.040	Variance	4.161
Kurtosis	-.102	S.E. Kurt	.459
Skewness	-.560	S.E. Skew	.231
Minimum	3.00	Maximum	12.00

Valid observations - 109 Missing observations - 6

Variable HELBEL1N total health belief near time1

Mean	8.312	S.E. Mean	.195
Std Dev	2.040	Variance	4.161
Kurtosis	-.102	S.E. Kurt	.459
Skewness	-.560	S.E. Skew	.231
Minimum	3.00	Maximum	12.00

Valid observations - 109 Missing observations - 6

Variable SOMATIC total of ghq A1 to ghq A7 time one

Mean	8.421	S.E. Mean	.488
Std Dev	5.043	Variance	25.435
Kurtosis	-.168	S.E. Kurt	.463
Skewness	.394	S.E. Skew	.234
Minimum	.00	Maximum	24.00

Valid observations - 107 Missing observations - 8

Variable SOCDYSFU social dysfunction time one

Mean	9.402	S.E. Mean	.425
Std Dev	4.393	Variance	19.299
Kurtosis	-.763	S.E. Kurt	.463
Skewness	.401	S.E. Skew	.234
Minimum	1.00	Maximum	20.00

Valid observations - 107 Missing observations - 8

Variable ANXINSOM anxiety and insomnia tm1

Mean	9.804	S.E. Mean	.608
Std Dev	6.286	Variance	39.518
Kurtosis	.202	S.E. Kurt	.463
Skewness	.694	S.E. Skew	.234
Minimum	.00	Maximum	27.00

Valid observations - 107 Missing observations - 8

Variable ILLNESS total of illness from injuries to misc.

Mean	11.000	S.E. Mean	.318
Std Dev	3.278	Variance	10.743
Kurtosis	.320	S.E. Kurt	.465
Skewness	.781	S.E. Skew	.235
Minimum	7.00	Maximum	21.00

Valid observations - 106 Missing observations - 9

Variable CHANCE2 chance locus of control tm2

Mean	13.032	S.E. Mean	.656
Std Dev	5.205	Variance	27.096
Kurtosis	-.171	S.E. Kurt	.595
Skewness	.596	S.E. Skew	.302
Minimum	6.00	Maximum	26.00

Valid observations - 63 Missing observations - 52

Variable CHANCE chance locus of control tm1

Mean	13.990	S.E. Mean	.520
Std Dev	5.298	Variance	28.068
Kurtosis	-.772	S.E. Kurt	.469
Skewness	.320	S.E. Skew	.237
Minimum	6.00	Maximum	26.00

Valid observations - 104 Missing observations - 11

Variable HETHBEH2 health behaviuor2 time one multiple of

Mean	14.071	S.E. Mean	.508
Std Dev	5.400	Variance	29.156
Kurtosis	1.424	S.E. Kurt	.451
Skewness	1.003	S.E. Skew	.227
Minimum	6.00	Maximum	33.00

Valid observations - 113 Missing observations - 2

Variable HETHBEH1 health behaviour time one

Mean	14.708	S.E. Mean	.440
Std Dev	4.675	Variance	21.851
Kurtosis	-.048	S.E. Kurt	.451
Skewness	.482	S.E. Skew	.227
Minimum	7.00	Maximum	28.00

Valid observations - 113 Missing observations - 2

Variable EXTERL2 external locus of control tm2

Mean	15.048	S.E. Mean	.693
Std Dev	5.499	Variance	30.240
Kurtosis	.168	S.E. Kurt	.595
Skewness	.766	S.E. Skew	.302
Minimum	6.00	Maximum	31.00

Valid observations - 63 Missing observations - 52

Variable HEALTHT2

Mean	15.817	S.E. Mean	.404
Std Dev	3.133	Variance	9.813
Kurtosis	-.709	S.E. Kurt	.608
Skewness	-.085	S.E. Skew	.309
Minimum	9.00	Maximum	23.00

Valid observations - 60 Missing observations - 55

Variable EXTERNAL powerful others locus of control tm1

Mean	15.906	S.E. Mean	.538
Std Dev	5.539	Variance	30.677
Kurtosis	-.262	S.E. Kurt	.465
Skewness	.335	S.E. Skew	.235
Minimum	6.00	Maximum	31.00

Valid observations - 106 Missing observations - 9

Variable HEALTHT1

Mean	15.926	S.E. Mean	.363
Std Dev	3.773	Variance	14.237
Kurtosis	-.186	S.E. Kurt	.461
Skewness	-.354	S.E. Skew	.233
Minimum	6.00	Maximum	24.00

Valid observations - 108 Missing observations - 7

Variable SKSEF2.B smoking into tar into confidence

Mean	16.563	S.E. Mean	7.913
Std Dev	63.301	Variance	4007.044
Kurtosis	15.909	S.E. Kurt	.590
Skewness	4.054	S.E. Skew	.299
Minimum	.00	Maximum	320.00

Valid observations - 64 Missing observations - 51

Variable INTERNAL2 internal locus of control tm2

Mean	26.698	S.E. Mean	.687
Std Dev	5.453	Variance	29.730
Kurtosis	.319	S.E. Kurt	.595
Skewness	-.523	S.E. Skew	.302
Minimum	10.00	Maximum	36.00

Valid observations - 63 Missing observations - 52

Variable INTERNAL total of internal locus of control tm1

Mean	26.785	S.E. Mean	.497
Std Dev	5.140	Variance	26.416
Kurtosis	.349	S.E. Kurt	.463
Skewness	-.530	S.E. Skew	.234
Minimum	11.00	Maximum	36.00

Valid observations - 107 Missing observations - 8

Variable AGE age

Mean	36.912	S.E. Mean	.995
Std Dev	10.623	Variance	112.842
Kurtosis	-.798	S.E. Kurt	.449
Skewness	.046	S.E. Skew	.226
Minimum	18	Maximum	59

Valid observations - 114 Missing observations - 1

Variable AGE2

Mean	37.063	S.E. Mean	1.046
Std Dev	11.022	Variance	121.478
Kurtosis	-.889	S.E. Kurt	.455
Skewness	-.027	S.E. Skew	.229
Minimum	18	Maximum	59

Valid observations - 111 Missing observations - 4

Variable ID2

Mean	56.027	S.E. Mean	3.059
Std Dev	32.232	Variance	1038.917
Kurtosis	-1.194	S.E. Kurt	.455
Skewness	.005	S.E. Skew	.229
Minimum	1	Maximum	113

Valid observations - 111 Missing observations - 4

Variable ID id

Mean	57.500	S.E. Mean	3.096
Std Dev	33.053	Variance	1092.500
Kurtosis	-1.200	S.E. Kurt	.449
Skewness	.000	S.E. Skew	.226
Minimum	1	Maximum	114

Valid observations - 114 Missing observations - 1

Variable SMKSE1.2 smoke self efficacy tml including tar

Mean	69.223	S.E. Mean	23.627
Std Dev	239.790	Variance	57499.391
Kurtosis	19.582	S.E. Kurt	.472
Skewness	4.314	S.E. Skew	.238
Minimum	.00	Maximum	1400.00

Valid observations - 103 Missing observations - 12

Variable EXCONF exercise confidence time one

Mean	81.294	S.E. Mean	2.134
Std Dev	22.279	Variance	496.376
Kurtosis	1.802	S.E. Kurt	.459
Skewness	-1.315	S.E. Skew	.231
Minimum	1.00	Maximum	100.0

Valid observations - 109 Missing observations - 6

Variable SAFTCON2 satfat confidence tm2

Mean	82.293	S.E. Mean	2.772
Std Dev	24.004	Variance	576.210
Kurtosis	3.475	S.E. Kurt	.548
Skewness	-1.850	S.E. Skew	.277
Minimum	3.00	Maximum	100.00

Valid observations - 75 Missing observations - 40

Variable SFCON saturated fat confidence

Mean	83.138	S.E. Mean	1.992
Std Dev	20.799	Variance	432.583
Kurtosis	3.170	S.E. Kurt	.459
Skewness	-1.616	S.E. Skew	.231
Minimum	1.00	Maximum	100.0

Valid observations - 109 Missing observations - 6

Variable WGCRCN whgrain & cereal confidence

Mean	84.394	S.E. Mean	1.998
Std Dev	20.375	Variance	415.134
Kurtosis	3.277	S.E. Kurt	.469

Skewness	-1.631	S.E. Skew	.237
Minimum	1.00	Maximum	100.0

Valid observations - 104 Missing observations - 11

Variable WGRRCF2 wholegrain & cereal confidence tm2

Mean	85.667	S.E. Mean	2.300
Std Dev	19.921	Variance	396.847
Kurtosis	2.281	S.E. Kurt	.548
Skewness	-1.554	S.E. Skew	.277
Minimum	10.00	Maximum	100.00

Valid observations - 75 Missing observations - 40

Variable EXERCON2 exerconfidence tm2

Mean	86.333	S.E. Mean	1.873
Std Dev	16.219	Variance	263.063
Kurtosis	.067	S.E. Kurt	.548
Skewness	-.976	S.E. Skew	.277
Minimum	40.00	Maximum	100.00

Valid observations - 75 Missing observations - 40

Variable VGFRCON vege fruit confidence

Mean	86.844	S.E. Mean	1.701
Std Dev	17.759	Variance	315.374
Kurtosis	5.434	S.E. Kurt	.459
Skewness	-1.934	S.E. Skew	.231
Minimum	1.00	Maximum	100.0

Valid observations - 109 Missing observations - 6

Variable VGFRCON2 vege fruit confidence tm2

Mean	87.067	S.E. Mean	2.280
Std Dev	19.747	Variance	389.928
Kurtosis	4.720	S.E. Kurt	.548
Skewness	-2.022	S.E. Skew	.277
Minimum	10.00	Maximum	100.00

Valid observations - 75 Missing observations - 40

Variable SKTRCOF2 smktar confidence tm2

Mean	92.360	S.E. Mean	2.675
Std Dev	23.170	Variance	536.828
Kurtosis	10.943	S.E. Kurt	.548
Skewness	-3.411	S.E. Skew	.277
Minimum	-1.00	Maximum	100.00

Valid observations - 75 Missing observations - 40

Variable SMTCON smk tar confidence

Mean	94.500	S.E. Mean	1.398
Std Dev	13.554	Variance	183.715
Kurtosis	4.963	S.E. Kurt	.493
Skewness	-2.487	S.E. Skew	.249
Minimum	50.00	Maximum	100.0

Valid observations - 94 Missing observations - 21

Variable SKSEF2.A smoking into confidence tm2

Mean	106.066	S.E. Mean	4.111
Std Dev	32.108	Variance	1030.929
Kurtosis	27.114	S.E. Kurt	.604
Skewness	5.098	S.E. Skew	.306
Minimum	70.00	Maximum	300.00

Valid observations - 61 Missing observations - 54

Variable SMKSE1 smoke self efficacy tm1

Mean	137.022	S.E. Mean	13.261
Std Dev	127.887	Variance	16355.043
Kurtosis	12.720	S.E. Kurt	.495
Skewness	3.647	S.E. Skew	.250
Minimum	50.00	Maximum	700.00

Valid observations - 93 Missing observations - 22

Variable VGFRE2.A vege fruit self efficacy tm2 includes co

Mean	151.032	S.E. Mean	8.206
Std Dev	65.131	Variance	4242.063
Kurtosis	-.134	S.E. Kurt	.595
Skewness	.825	S.E. Skew	.302
Minimum	60.00	Maximum	300.00

Valid observations - 63 Missing observations - 52

Variable VGRSEF1 vegetable & fruit self efficacy tm10

Mean	155.720	S.E. Mean	6.552
Std Dev	67.778	Variance	4593.902
Kurtosis	1.937	S.E. Kurt	.463
Skewness	.899	S.E. Skew	.234
Minimum	2.00	Maximum	400.00

Valid observations - 107 Missing observations - 8

Variable WGRSE2.A wholegrain & cereal tm2 includes confide

Mean	178.254	S.E. Mean	9.045
Std Dev	71.792	Variance	5154.160
Kurtosis	-.568	S.E. Kurt	.595
Skewness	.154	S.E. Skew	.302
Minimum	30.00	Maximum	320.00

Valid observations - 63 Missing observations - 52

Variable FATSE2.A saturated fat self efficacy tm2 into con

Mean	207.937	S.E. Mean	9.059
Std Dev	71.907	Variance	5170.673
Kurtosis	-.565	S.E. Kurt	.595
Skewness	-.228	S.E. Skew	.302
Minimum	30.00	Maximum	300.00

Valid observations - 63 Missing observations - 52

Variable WHGRSEF1 wholegrain & cereal self efficacy tml

Mean	211.990	S.E. Mean	14.740
Std Dev	147.396	Variance	21725.727
Kurtosis	42.536	S.E. Kurt	.478
Skewness	5.384	S.E. Skew	.241
Minimum	2.00	Maximum	1400.00

Valid observations - 100 Missing observations - 15

Variable FATSELF1 saturated fats into confidence

Mean	212.832	S.E. Mean	7.637
Std Dev	79.000	Variance	6240.953
Kurtosis	-.243	S.E. Kurt	.463
Skewness	.018	S.E. Skew	.234
Minimum	3.00	Maximum	400.00

Valid observations - 107 Missing observations - 8

Variable EXERSEF1 exercise self efficacy into confidence

Mean	291.505	S.E. Mean	23.345
Std Dev	241.480	Variance	58312.535
Kurtosis	1.953	S.E. Kurt	.463
Skewness	1.547	S.E. Skew	.234
Minimum	1.00	Maximum	1000.00

Valid observations - 107 Missing observations - 8

Variable EXRSE2.A exercise self efficacy tm2 includes conf

Mean	341.270	S.E. Mean	31.816
Std Dev	252.534	Variance	63773.361
Kurtosis	.352	S.E. Kurt	.595
Skewness	1.156	S.E. Skew	.302
Minimum	65.00	Maximum	1000.00

Valid observations - 63 Missing observations - 52

Variable DIET2.A diet tm2 fat & vege & whgrain

Mean	537.222	S.E. Mean	21.550
Std Dev	171.045	Variance	29256.272
Kurtosis	-.393	S.E. Kurt	.595
Skewness	.369	S.E. Skew	.302
Minimum	180.00	Maximum	900.00

Valid observations - 63 Missing observations - 52

Variable DIETSEF1 diet self efficacy tml

Mean	578.240	S.E. Mean	21.429
Std Dev	214.289	Variance	45919.780
Kurtosis	5.191	S.E. Kurt	.478
Skewness	1.166	S.E. Skew	.241
Minimum	7.00	Maximum	1620.00

Valid observations - 100 Missing observations - 15

Positional Index

Variable	Page	Variable	Page	Variable	Page	Variable	Page
ID	1	GHQA6	1	HLC17	1	HLC2.18	1
AGE	1	GHQA7	1	HLC18	1	SMKNTOT1	1
JOB	1	GHQB1	1	ID2	1	SMKNTOT2	1
SMOKE	1	GHQB2	1	AGE2	1	DIET	1
TAR	1	GHQB3	1	JOB2	1	PHYHELHN	1
FAT	1	GHQB4	1	SMKSE2	1	ILLNESS	1
VEGE	1	GHQB5	1	TAR2	1	SOMATIC	1
CEREAL	1	GHQB6	1	SKTRCOF2	1	ANXINSOM	1
EXRCIS	1	GHQB7	1	SATFAT2	1	SOCDYSFU	1
SMKSEF	1	GHQC1	1	SAFTCON2	1	SEVDEPRS	1
TARSEF	1	GHQC2	1	VEGFR2	1	INTERNAL	1
SMTCON	1	GHQC3	1	VGFRCON2	1	EXTERNAL	1
SFSEF	1	GHQC4	1	WHGRCL2	1	CHANCE	1
SFCON	1	GHQC5	1	WGRRCRF2	1	HETHBEH1	1
VGFRSEF	1	GHQC6	1	EXER2	1	HETHBEH2	1
VGFRCON	1	GHQC7	1	EXERCON2	1	SMKSE1	1
WGCRSE	1	GHQD1	1	LIKNER2	1	SMKSEL.2	1
WGCRCON	1	GHQD2	1	CERNEAR2	1	FATSELF1	1
EXSEFF	1	GHQD3	1	SERNER2	1	VGFRSEF1	1
EXCONF	1	GHQD4	1	LIKDIST2	1	WHGRSEF1	1
PHYHELTH	1	GHQD5	1	CERNDIS2	1	DIETSEF1	1
INJACCI	1	GHQD6	1	SERDIST2	1	EXERSEF1	1
INFECT	1	GHQD7	1	HLC2.01	1	SKSEF2.A	1
RESPILL	1	HLC1	1	HLC2.02	1	SKSEF2.B	1
GASTRO	1	HLC2	1	HLC2.03	1	FATSE2.A	1
HEDMIG	1	HLC3	1	HLC2.04	1	VGFR2.A	1
CARDIO	1	HLC4	1	HLC2.05	1	WGRSE2.A	1
MISCELL	1	HLC5	1	HLC2.06	1	EXRSE2.A	1
LIKNERFU	1	HLC6	1	HLC2.07	1	DIET2.A	1
CONRFU	1	HLC7	1	HLC2.08	1	INTERNAL2	1
SERNRFU	1	HLC8	1	HLC2.09	1	EXTERL2	1
LIKDIST	1	HLC9	1	HLC2.10	1	CHANCE2	1
COCERDIS	1	HLC10	1	HLC2.11	1	HELBEL2N	1
SERDIST	1	HLC11	1	HLC2.12	1	HELBEL2D	1
GHQA1	1	HLC12	1	HLC2.13	1	HELBEL1N	1
GHQA2	1	HLC13	1	HLC2.14	1	HELBEL1D	1
GHQA3	1	HLC14	1	HLC2.15	1	HEALTHT1	1
GHQA4	1	HLC15	1	HLC2.16	1	HEALTHT2	1
GHQA5	1	HLC16	1	HLC2.17	1		

Alphabetic Index

Variable	Page	Variable	Page	Variable	Page	Variable	Page
AGE	1	GHQB6	1	HLC2.04	1	SAFTCON2	1
AGE2	1	GHQB7	1	HLC2.05	1	SATFAT2	1
ANXINSOM	1	GHQC1	1	HLC2.06	1	SERDIST	1
CARDIO	1	GHQC2	1	HLC2.07	1	SERDIST2	1
CEREAL	1	GHQC3	1	HLC2.08	1	SERNER2	1
CERNDIS2	1	GHQC4	1	HLC2.09	1	SERNRFU	1

CERNEAR2	1	GHQC5	1	HLC2.10	1	SEVDEPRS	1
CHANCE	1	GHQC6	1	HLC2.11	1	SFCON	1
CHANCE2	1	GHQC7	1	HLC2.12	1	SFSEF	1
COCERDIS	1	GHQD1	1	HLC2.13	1	SKSEF2.A	1
CONRFU	1	GHQD2	1	HLC2.14	1	SKSEF2.B	1
DIET	1	GHQD3	1	HLC2.15	1	SKTRCOF2	1
DIET2.A	1	GHQD4	1	HLC2.16	1	SMKNTOT1	1
DIETSEF1	1	GHQD5	1	HLC2.17	1	SMKNTOT2	1
EXCONF	1	GHQD6	1	HLC2.18	1	SMKSE1	1
EXER2	1	GHQD7	1	HLC3	1	SMKSE1.2	1
EXERCON2	1	HEALTHT1	1	HLC4	1	SMKSE2	1
EXERSEF1	1	HEALTHT2	1	HLC5	1	SMKSEF	1
EXRCIS	1	HEDMIG	1	HLC6	1	SMOKE	1
EXRSE2.A	1	HELBEL1D	1	HLC7	1	SMTCON	1
EXSEFF	1	HELBEL1N	1	HLC8	1	SOCDYSFU	1
EXTERL2	1	HELBEL2D	1	HLC9	1	SOMATIC	1
EXTERNAL	1	HELBEL2N	1	ID	1	TAR	1
FAT	1	HETHBEH1	1	ID2	1	TAR2	1
FATSE2.A	1	HETHBEH2	1	ILLNESS	1	TARSEF	1
FATSELF1	1	HLC1	1	INFECT	1	VEGE	1
GASTRO	1	HLC10	1	INJACCI	1	VEGFR2	1
GHQA1	1	HLC11	1	INTERNAL	1	VGFRCON	1
GHQA2	1	HLC12	1	INTERNAL2	1	VGFRCON2	1
GHQA3	1	HLC13	1	JOB	1	VGFR2.A	1
GHQA4	1	HLC14	1	JOB2	1	VGFRSEF	1
GHQA5	1	HLC15	1	LIKDIST	1	VGFRSEF1	1
GHQA6	1	HLC16	1	LIKDIST2	1	WGRCRCON	1
GHQA7	1	HLC17	1	LIKNER2	1	WGCRSE	1
GHQB1	1	HLC18	1	LIKNERFU	1	WGRCRCF2	1
GHQB2	1	HLC2	1	MISCELL	1	WGRSE2.A	1
GHQB3	1	HLC2.01	1	PHYHELHN	1	WHGRCRL2	1
GHQB4	1	HLC2.02	1	PHYHELTH	1	WHGRSEF1	1
GHQB5	1	HLC2.03	1	RESPILL	1		