REVIEW OF RELATED LITERATURE
CHAPTER - II

REVIEW OF LITERATURE

Review of related literature is an important part of the scientific approach and is carried out in all area of scientific research in Physical, natural and social science. It enables us to understand different aspects of the study undertaken. It is indispensable to have an insightful knowledge of the subject

A review of literature related to the present study was collected Not only in Indian but in other advanced countries as well the research scholar have literature of physical education sports and education from different parts of India.

Some of the most important studies which were found out by the researcher from the libraries, like from Maharshi Dayanand University Rohtak, Kurukshetra University, CCSHAU Hisar ,GJU.Hisar , Indira Gandhi Institute of Physical Education and Sports Sciences Delhi, Panjubi University Chandigarh , Punjabi University Patiyala, LNCPE Gawaliyar, Inter Net (web-site) , Sports Dept. related Health Clubs & Sports Literature and other sources.

The investigator availed of an opportunity to go through various type of literature like professional Journals, Abstracts, Encyclopedias, Pamphlets, Government documents, selected Books and newspaper to pick-up useful material which has been examined carefully and critically before being incorporated in the present study.

Astrand\(^2\) writes in his book "Health and Fitness" that Americans are unfit. Recent studies to determine the fitness of the average American showed that we are below norms of the Scandinavian countries and that many Americans had fitness level which could be classified below these set by the American Heart Association. Unbelievable as it may be seen, women are less fit than men, with teenagers and 20-29 years old women rated lowest.

Not only the adults suffer the effects of indolence: most American children are also unfit. In a 10 years longitudinal study of school children it was found out that cardiovascular fitness declines steadily from the age eight stabilizing at a very low level only in the adolescence.

Michael\textsuperscript{27} assessed the current status of health promotion programmes in order to develop a profile of the health promotion programmes conducted by employees with over 100 employees in the state of Tennessee. This study consisted of telephonic survey of 266 randomly selected employers in the state of Tennessee...

The analysis of the findings of this investigation led to the following conclusions:

Health promotion in Tennesse consists primarily of accident prevention services.

Most Tennesse employers do not know what their health program casts.

Of all agencies available the American Red Cross Society seems to be most frequently used by Tennesse employers.

Guermonprez\textsuperscript{28} conducted a study on health promotion/wellness through out of the Southern district of the American Alliance of Health, Physical Education, Recreation and Dance. There were 386 departments of physical education surveyed in the Southern United States, 276 of which responded. If the respondents, forty five departments of physical education indicted they had offered alternative career tracks in health promotion/wellness. The majority of the study population reported that fewer than five courses were changed from the traditional teacher education programme. The respondents reported over ten different sources from which they would obtain literature regarding undergraduate curricular standard in health promotion/wellness.

Guess\textsuperscript{29} made a survey study of 49 independent but non parodical secondary school in California. He used the questionnaire method to determine the extent to which


their programmes implemented. The recommendations made by the State of California for a boys four years physical education programme. A majority of the independent schools failed to meet the state standard. Common weaknesses were in adequacy of trained personnel and lack of school parent communication points that acted favorably were limited size of classes, aquatic programs and inter school athletic programmes.

Mann\textsuperscript{30} in his study elaborated one of the major function to provide training to key medical and paramedical personnel in health education. Every year it conducts about ten to twelve training course in health education for different category of personnel engaged in various health programmes. Including teacher educator’s, media personnel, medical and paramedical persons and professionals.

In this study field practice and field study demonstration were conducted in effective ways for the benefit of the people. It has four fold purposes:

Conducting field studies on problems related to health and health education.

Testing and developing a strategy for health education i.e. methods, media and techniques.

Demonstrating the results of health education in the health promotion of the people.

Providing field opportunities for developing training programmes in health education.

Sahni\textsuperscript{31} said, is the end of the 90’s and everyone around is heavily into fitness. You try to look with it when friends, colleague, neighbours and that irritating 12 years old on the second floor drop terms like cardiovacular, step, pecs, abs..... but it doesn't fool anybody. Your paunch/flabby things/high cholesterol/heavy breathing are sure sign you need to get moving (all those nubile young midriffs on the MTV). So one day, you

\textsuperscript{30} Mann C.K., “Significance of Field Study and Demonstration Center in Health Education,” Swasth Hind (Feb. 1989) pp51-56

\textsuperscript{31} Parmesh Sahni, Elle-Fitness, Body Works (Mumbai : Organ Publications Pvt. Ltd., 1977)
venture out bravely, looking for a fitness center to solve all your woes. There are loads of
them out there, right? Piece of cake, right?

Lehri, A. et al (2006)\textsuperscript{32}, conducted the study on 120 females ranging in age from
20 to 40 years to determine the affectivity of different exercise programmes in causing
weight loss and favorable body composition. Based on the results of the study, it is
concluded that both the strength training and aerobic exercise programs exhibit great
potentials for weight management. Aerobic training has been observed to decrease body
weight from both the fat and muscle compartments while strength training conserved the
lean body mass and reduced the fat compartment and thus caused favorable body
composition in females.

Coetsee\textsuperscript{33} a study on the role played by Health and Fitness Clubs addressing the
causes of hypo kinetic diseases and coronary heart disease. He said, in order to be well
prepared, service providers should be aware of the health and fitness profiles of their
clients when they join their clubs. In his study he assessed 243 white females of age
ranging from 13 to 70 years. The results were analyzed for risk factors and the findings
compared with existing norms in literature. He found that in comparison to general
female population of Durban the subjects who joined the health clubs were health
conscious. Before joining almost half (49.4\%) of the subjects were inactive, and the
incidence of hypertension as a risk factor.

Wilhelmina\textsuperscript{34} studied on positive contribution of physical activity on physical and
mental health that is widely acknowledged. The scholar said that participation in sport
and exercise is not as high as expected. In addition to this, people who start exercising
often do not adhere to their exercise programme. The study examined the effectiveness of
Bandera’s self efficacy theory to predict exercise adherence. A sample of new members

and Favourable Body Composition in Females” Journal of Exercise Science and Physiotherapy, Vol. 2,
pp96-99

\textsuperscript{33} Marius F. Coetsee, “An Assessment of Physical Fitness and Coronary Heart Disease Risk Factors of
White Females in Durban Area that Attend Health and Fitness Club,” Dissertation Abstracts International

\textsuperscript{34} Wilhelmina H., “The Contribution of Self-efficacy and Outcome Expectations in the Prediction of
of a gymnasium was assessed on a physical self-efficacy scale, an Adherence Efficacy Scale and on outcome Expectancy scale. The dependent variable exercise adherence was assessed by monitoring the intend and actual frequency of visits to the gymnasiums. He employed multiple regression analysis to test the hypothesis. Results indicated that physical efficacy was a significant predictor of exercise adherence for the total group as well as for the females separately. The results partly confirm the self-efficacy theory of Bandera.

Ross\textsuperscript{35} conducted a study on the courses that emphasize lifestyle changes to promote health and wellness. He said that these courses are plentiful in higher education today. However, the effectiveness of these courses is unknown. The purpose of his study was to determine the efficacy of an introductory health course in producing positive changes in wellness behaviors of the student enrolled. He examined 860 undergraduate students enrolled in either a college health course or English general studies course. All subjects were pre and post tested during the first two weeks and last two weeks of the semester. He found that those attending the health course were positively changing their wellness behaviors those who attended English course.

Anuradha Lehri et al (2010)\textsuperscript{36} conducted this study to find out the impact of three different exercise programmes on health related fitness in females ranging in age from 20-40 years. The total number of subjects was 120. Depending upon the exercise programme given, the subjects were divided into four groups viz. aerobic, strength, mixed(combination of aerobic and strength) and control group. The components of health related fitness namely cardiovascular endurance, muscular strength and endurance, flexibility and body composition were measured with the use of standard techniques. The results show that aerobic exercise programme has a greater potential for improving the cardiovascular fitness as compared to other groups. Muscular strength in endurance have

\textsuperscript{35} Steven Ross, “The Efficacy of An Introductory Health/Wellness Course in Positively Changing Wellness Behaviors,” Dissertation Abstracts International 57 (October 1996): 1509-A

been found to respond better especially of upper body to strength exercise programme. Aerobic group also found to have significant reduction in percent body fat.

Joan37 carried out a study on the ACSM’s Health/Fitness facility standards and guidelines which required health/fitness facilities to incorporate specific mandatory “standards” into their daily operations. The purpose of the study was to obtain opinions from three groups of ACSM members, academicians, managers and practitioners, regarding 49 selected standards. A survey mailed to 1035 members. He used a six point Likert Scale to determine the level of agreement with each standard. The majority of respondents agreed with there of the general opinion statements: (a) the standards enhance credibility in the field (97%), (b) if implemented, the standards, would decrease liability (89%), (c) ACSM should publish guidelines not standards (68%).

Elizabeth38 assessed that evaluation has been recognized as a basic component of health promotion program design. The study was conducted to determine what types of evaluation, if any were conducted by health promotion professionals employed in worksite health promotion programs. A survey tool was developed specifically for this study and mailed to 587 responses were received back. Results showed that evaluation activities were used by the survey participants to review or revise the health promotion activities.

Harish Kumar et al (2010)39 in his study conducted on a total of 30 male volunteers in the age range of 16 to 22 years. The subjects were grouped in to Aerobic, Anaerobic and Sedentary groups based on their training specialty. The aerobic group consisted of 8 trained cyclists while the anaerobic group consisted of 3 sprinters, 4 footballers and 5 wrestlers. Both the aerobic and anaerobic group was trained for a year and above. The sedentary groups comprised of 10 students from different departments of Punjabi University, Patiala and were not taking part in any regular exercise program. The

main aim of the study was to compare the ECG responses to graded treadmill exercise among the aerobic, anaerobic and sedentary groups as well as to report the effect of intensity of exercise on the ECG. All the subjects of the study were administered a graded treadmill test using Modified Bruce Protocol that consisted of nine stages each of which lasted for 3 minutes. All the subjects completed all the nine stages. Exercise test was performed on Electrical Treadmill. Heart rate and ECG responses were monitored by using a standard 12-lead system with a computerized Electrocardiography machine. The Grade of the treadmill was kept constant for the first three stages (0%) and then starting from stage 4 grade was increased to 12% where after it was progressively increased by 2% until stage 9 to 22%. The speed of the treadmill belt was 2.70 Kilometer hour in the first three stages thereafter gradually increased to 4.00, 5.40, 6.70, 8.00, 8.80 and 9.60 kilometer per hour at stage 4, 5, 6, 7, 8 and 9 respectively. Consistently lower mean QRS duration is observed in the case of aerobic group as compared to the sedentary and anaerobic groups but with no statistical significance. QRS-complex represents ventricular depolarization, which involves the inter-ventricular septum and simultaneous left and right ventricular stimulation. The lesser duration of ventricular depolarization in case of aerobic group is indicative of faster spread of electrical activity in the ventricles and more time available for the recovery of the heart. Aerobic group of players on an average have significantly greater QRS amplitude than their anaerobic and sedentary counterparts.

Mae\textsuperscript{40} conducted a study on the effectiveness of walking clubs and self directed program among African American females and said that the American sub groups of females have the lowest participation in leisure time physical activity. The purpose of the study was queasy experimental to test the effectiveness of two types of interventions (1) The walking clubs (2) Self directed intervention. The results of the study showed that for the walking clubs the mean number of days increased from 1 on the pretest to 5 on the post test.

\textsuperscript{40} Mae, Rogers Tacoma, "Effectiveness of Walking Club and Self Directed Program, Physical Activity Program in Increasing moderate Intensity Physical Activity Females."
Wyckoff\textsuperscript{41} conducted a study to determine the extent of knowledge and use of health services and facilities within a community college. The researcher developed a questionnaire which was administered to 287 students. The analysis of the data gathered from the students responses to the questionnaire revealed that the levels of knowledge and use of the service afforded by the college and the services rendered by agencies in Dallas County were not oriented to the criteria of the questionnaire. The findings of the study were in agreement with those of the studies reviewed in the literature, all of which reported little knowledge and use of college health facilities on part of the students.

Parminder Jit Kaur (2010)\textsuperscript{42} conducted a comparative study of cardio respiratory fitness in relation to BMI in rural and urban boys ranging in age from 18-20 years was carried on 60 males. The subjects were divided into rural and urban groups. In each group there were thirty male subjects ranging in age 18-20 years. The urban subjects were taken from district Patiala and rural were belonged to rural areas of district Muktsar, Punjab various anthropometric measurements like height, weight, skin fold thickness were taken on each subject using standardized techniques. Harvard step test was used to evaluate the card respiratory endurance of all the subjects. It was found that rural boys possess more present body fat, less BMI as well as poor cardio-respiratory endurance as compared to their urban counterparts having less percent body fat, more BMI and good score of fitness. The good cardio-respiratory scope of urban boys may be attributed to the fact that almost all of the urban groups of boys were involved in planned physical work in gym, while the rural groups of boys were not participating in any type of planned exercise. Urban group of boys showed good fitness index score while rural group showed the poor performance by achieving the lowest level of fitness index score.

Young\textsuperscript{43} studied the employee’s participation patterns in corporate fitness programs and their absenteeism rate, job satisfaction, personal health recognition and

\textsuperscript{41} Wyckoff, Jean Elden. “Knowledge and Services Available at the El Centro Community College Health Center and Health Related Agencies in the city of Dallas.” Dissertation Abstracts International 41:3 (Nov. 1980): 1965 - A

\textsuperscript{42} Kaur Parminder Jit, Unpublished Dissertation of Master of Sports, Punjabi University Patiala (2010)

\textsuperscript{43} Young, Michael Youn “A Comparision of Employees Participation Patterens in Corporate Fitness and Influential factors that Effect Personal Job Performance.” Dissertation Abstracts International 62 (Oct. 2001) :1063-A.
level of stress. The project included analyses of three types of employees those that did not participate in a fitness program, those participated moderately and those participated frequently. A hand out survey instrument containing 40 statements regarding issues in corporate fitness programs was developed to measure these differences. One way ANOVA were used to compare the subject group mean. Significant difference was found between the groups in absenteeism issue and health recognition issue. The student Newman - Klaus post hoc test revealed that for both the group of moderately participating and frequently participating were significantly different than those of the group of non participation.

Wright\textsuperscript{44} says that I am to integrate public health knowledge of communication and transactional process with best practices to enhance health promotion program implementation and ownership in a voluntary agency. The case study methodology was chosen because it allows the researcher to capture the richness person environment situation interactions. The study found that disconnects can occur in a public health collaboration. Health promotion program develops often neither sense nor understand the social meaning and consequences of the program they introduce to organizational or community members.

Banner\textsuperscript{45} studied on the Keyence’s model of extraversion was used to best two health related programs for their effectiveness in reducing adolescent stress based on personality differences. Also of interest was the particular personality profile of academically bright teenagers. It was predicated that significant differences should accompany individuals. It was also predicated that these academically bright students would present a profile indicative of greater stress related symptomatology. 63 males and 53 females participated in the study. The results of the study partially supported the first hypothesis in that the extraversion dimension appears to play a role in affecting program effectiveness. The second hypothesis that a bright adolescent population would display

\textsuperscript{44}Dawna Ranee Wright, “Collaborative Transfer of A Public Health Program,” Dissertation Abstracts International 62 (June 2002): 6081-A
\textsuperscript{45}Jorhdin Banner, “Personality Compatible Health Programs and Their Influence on Behavior: A Study of Academically Bright Students,” Dissertation Abstracts International 53 (June 1993): 4217-A
more stress symptomatology was not substantiated. The Addison of a relaxation training program to the school’s curriculum was suggested.

Joan\textsuperscript{46} in her investigation determines the effect exercise membership in a corporate fitness center and certain health risk/lifestyle behaviors had on absenteeism. Four study group were selected based on their exercise adherence levels and membership status in the club 200 corporate fitness center at the Columbia Gas General Office Facility in Columbus, Ohio. The results of the study indicated that the exercise membership and exercise intensity groups had fewer disability absences than the control and exercise non membership group for the two year study period. The study suggested that on exercise adherence level of three or more days per week, membership in a corporate fitness center, and certain health risk and life style behavior were responsible for fewer mean disability absence in this investigation.

Elena\textsuperscript{47} conducted a study on factors associated with participation and non participation in an employee health promotion program at a medical center. One hundred fifty five voluntary participants and 138 non participants were randomly selected for the study. They were asked to respond to a questionnaire. Results from t-test showed significant differences between groups in number of years employed. Chi-square test showed significant difference between groups on health improvement, smoking, weight, factors that requires immediate departure from the work place.

The mind body benefits of physical fitness through health clubs exercise can help combat stress and potential said a survey conducted by American Institute of Stress\textsuperscript{48}. Stress from traffic, cell phones and balancing work life is so pervasive today that it becomes a driving force behind rising health care costs. In a six year study of more than 46,000 workers, depression and unmanaged stress emerged as the costliest risk factors in terms of medical expenditure. While impossible to eliminate stress from modern life, one


\textsuperscript{47} Maria Elena, “Factors Associated with Participation and Non-Participation in An Employee Health Promotion Program at a Medical center,” Dissertation Abstracts International 57 (September 1996):1038-A

\textsuperscript{48} The Mind-Body Benefits of Physical Fitness, Mental Health Matters, American Institute of Stress February 2009
can control the effect it has on the mind and body. People with increased levels of anxiety and nervous tension need to develop effective ways of coping with stress. The link between mind and body was accepted in ancient India, the birth place of yoga, thousands of years ago. It has taken a while for Western Fitness Experts to embrace the idea, however the concept of holistic health and fitness rapidly gaining popularity and acceptance. In a survey of health clubs belonging to IHRSA, 23% offer classes specifically geared to wellness and stress reduction. Consumer research shows that an impressive number of American Health Club Members cite holistic motivations for working out, 54% said they exercised regularly, they like they have their overall act together while 38% said that when they do not exercise regularly, they just don’t feel right.

Bishop’s\textsuperscript{49} study investigated a model fitness program designed to overcome socioeconomic barriers to women fitness and meet scientific criteria for fitness programming. Features of the model program were identified through the review of literature and a pilot fitness program. The model was tested by using the Delphi process to question a panel of experts about the model features and a practical application of the model to test the hypothesis. The review of literature revealed that women are underrepresented in percentages of those who are participating in regular and various activity. Women lack of time, money, safety and resources such as facilities, equipments, instruction and support were found to be greater barriers to participation than more commonly cited factors such as discrimination. The nonprofit model program featured low-cost women only daily group exercise sessions and child care. The study accepted the hypothesis that experts would approve of the model as one which identifies, barrier, needed resources and fitness program components.

For many people, the thought of visiting a gym means getting sweaty and burning calories, yet a MORI surrey commissioned by Esparto plc\textsuperscript{50} shows that in fact, given the opportunity to enjoy an afternoon at a health club, less than a third of women would close

\textsuperscript{49} Phoebe Bishop, Facilitating Women Fitness : “A Scientifically Based Model Program designed to Overcome Socioeconomic Barriers to Women Involvement in Fitness,” Dissertation Abstracts International 48 : p2 (August 1987)

\textsuperscript{50} http://www.mori.com/polls/2001/esporta&html (September 2001)

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to work out. The diverse range of facilities at luxury health clubs like Sparta means that women would prefer to relax in the Jacuzzi, Sauna or spa (51%) have a manicure, facial or massage (48%) take a dip in the pool (46%) or enjoy lunch with friends (44%) Infect women were just as likely to choose to relax with a book or the papers (31%) as they were to workout in the gym, take an aerobics class or play tennis. Men too, it appear, would prefer to use health clubs to relax and unwind. Over half of those questioned (53%) would choose to swim in the pool, with to in five (42%) preferring to relax in the Jacuzzi, sauna or spa. A similar proportion (39%) said they would work out in the gym, take a class or play tennis.

The IHRSA\textsuperscript{51} survey that the number of health club members who visit their clubs frequently has swelled by more than 13.5% since 1987, according to data collected in the annual Health Club Trend Report. This 12 Year study indicates that 1999, of the roughly 31 million health club members in the United States, more than 12.5 million have become core members, visiting their clubs 100 or more days in 1999, up from 5.3 million in 1987. In terms of total population of health club members, the study also found an impressive increase in the average number of visits per year members made their clubs. Besides that, club members have discovered, now more than ever, the knowledge and expertise health club staff has to offer. Broken down by gender, men aged 55-64 years old visited a health club more than twice a week, or an average of 113 days, while those 65 and older visited their clubs just less than twice a week.

IHRSA\textsuperscript{52} in a survey of sixteen leading U.S. health companies from across the country found that the companies reported outperforming their second quarter results for 2001 on several key measures. The study, conducted for the international health, Racquet and Sports Clubs Association by Ernst and Young, LLP found that Q 2 2002 total company revenues grew by 10.2% over Q 2 2001. In particular, the clubs participating in the survey indicated that revenues from membership dues improved by 10.5% while non dues related revenues increased by 16.25% over 2001 levels. “The fact that revenue from both membership dues and non-dues sources were ahead of last year pace is particularly

\textsuperscript{51}http://www.ihrsa.org/info/newsarchive/news 02_09_27.html.
\textsuperscript{52}http://www.ihrsa.org/info/newsarchive/news 02_09_27.html.
good news." Observed John McCarthy, executive director, Growing membership dues revenue implies that clubs continued to recruit new members, while increases in non dues revenue indicates that membership continued to visit their clubs and make use of fee for service programs like palates or massages. The findings from this survey follow the news that the total number of commercial health clubs in U.S. grew by approximately 2% during the first six months of the year, to 18,203 facilities as of July 2002.

Jaimitra\textsuperscript{53} conducted a study to determine the effects of selected exercises on the physical fitness of sedentary adults. The subjects were 54 men, 32 from Madman Engineering College, Gwalior and 22 from Accountant General Office, Gwalior Two groups; one experimental and the other control were taken. Experimental group was subjected to a training programmed in selected exercises for 6 week the control group did not participate in exercise programmed and was instructed not to participate in any vigorous exercise or recreational activity. Both the groups were doing their normal daily work. The subjects were tested in physical fitness before and after the experimental period of 6 weeks. The mean gains experimental group were tested for significance by student's 't' test and found to be significant at one percent level of confidence.

Malek\textsuperscript{54} examined relations between commonly used indicators of knowledge (training and experience) and actual knowledge of the fitness instructors. Study was based on five areas (a) nutrition, (b) health screening, (c) testing protocols, (d) exercise prescription and (e) general training knowledge regarding special populations. FIKA provided reliable measures of knowledge in these areas, fitness program for the client and for avoiding necessary injuries. A survey of 115 health fitness professionals revealed that a bachelor's degree in the field of exercise science and possession of American Colleges of Sports Medicine were strong predictors of personal trainings knowledge, where as year of experience was not related to knowledge. The findings suggest that personal fitness trainers should have licensing requirements, such as a bachelor's degree in exercise

\textsuperscript{53} Jaimitra S., A Study of the Effect of Selected Exercises on Physical Fitness of Sedentary, M.P.E., 1966
science and certification by an organization whose criteria are extensive and widely accepted before being allowed to proactive their craft.

Hans\(^{55}\) said optimal health could be significantly influenced by parameters such as physical activity and a healthy lifestyle. The objective of this study was to determine whether a relationship exists between leisure-time physical activity, lifestyle and health status of black male midlevel mangos. Two hundred and twenty one (221) participants were selected from black midlevel management in a company in the public sector of the North West province. The type, intensity, frequency and duration of participation in leisure time physical activity were determined by the physical activity index (PAI) as suggested by Sharkey. The lifestyle habits and health status were determined by using the Bellow and Bristow index (BB) and the illness rating scale (IRS) of Wyle et al. respectively. Analyses of data indicated significant differences between physical activity and lifestyle as well as between lifestyle and health status. No significant differences between physical activity and health status were present. A multiple regression analyses indicated a relationship between sleep patterns and health. The health status of the employees could be improved by the implementation of physical intervention programmer, which could be beneficial for the company on the long-term.

Edwards\(^{56}\) conducted a study that constituted a comparative and longitudinal investigation of physical exercise and psychological wellness in a sample of health club members in Zululand, South Africa. The research was contextualized within a public health and community psychological model of mental health promotion. Physical exercise was categorized as regular or irregular, depending upon whether it met the criterion of exercising for an average thirty minutes of a day at least three times per week or not. A wellness profit was constructed from various questionnaires chosen on the basis of their relationship with psychological wellness and administered samples of health club members and university students. In the comparative investigation, health club members were more psychologically well then university students. Whether they were members of

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health club or not, participants who were regular exercisers were found to be more psychologically well than the irregular exercisers.

The median for minutes per week participation also increased. For self directed program, days of participation increased from 2 on the pre test to 4 on the post test. It was concluded that both a walking club and a self directed program were effective in increasing physical activity among the African American females who participated in the study.

Jean\textsuperscript{57} says that health promotion has become a big part of many large organizations. Interest in health promotion from business and industry has increased due to the rising health care costs. These rising costs, have influenced employers to assume more responsibility for the health and safety of their employees. Recent emerging health promotion programs have become more sophisticated and complex requiring skillful managers and administrators to coordinate the delivery of programs and services. The purpose of her study was to identify the administrative and management competencies of health promotion directors. A list of 41 competencies and varying number of competency actions were identified through in depth interview. The result of this study has implications for the health promotion profession and specifically health promotion directors.

\textsuperscript{57} Barbara Jean, "Administrative and Management Competencies of Health Promotion Directors in Occupational Settings," Dissertation Abstracts International 53 (June 1993) : 4217-A