A careful review and exploration of the related literature was indispensable to provide ideas, theories, explanation or hypothesis valuable in formulating the problem, to avoid the risk of duplicating the same study already undertaken, to suggest methods of research appropriate to the problem, to locate comparative data useful in the interpretation of results and to contribute to the general scholarship of the investigator. The current chapter was designed to bring light on a few related empirical studies which are relevant to the problem under study.

Lindelof et al. (2012) conducted a study to explore obese adolescents' attitudes to physical activity. Fifteen obese adolescents were recruited at a weight loss camp. Participants were followed for 2.5 years with three yearly rounds of participant observations and interviews. Data was analyzed using a phenomenological-hermeneutic approach. Four categories were identified: 1) throughout the study participants became more sedentary as they de-selected activities like bike-riding, 2) participants did not perceive their increasing inactive lifestyle as hindering weight loss as they consider such activities as futile compared to vigorously hard exercise, 3) participants frequently failed to participate in hard exercise, like going to the gym 4) participants had a genuine antipathy against being physical active Among others, a reason why obese adolescents fail to live an active life is that they find limited pleasure in such behaviour. It is argued that obese adolescents need a positive attitude towards physical activity if they are to be more active. With reference to Bourdieus theory of practice it is hypothesized that such attitude needs to be learned through everyday life by experiencing joy and meaning by being physical active.

Genti Lumturi (2012) carried out a study to find the factors affecting children’s attitudes towards physical activity (PA) and physical education are complex and mediated by a range of variables such as social class, gender and race; body image and physical identity. 1062 high-school students (465 B and 597 G) 14-18 years old from 6 different Public high schools of Albania have fulfilled a questionnaire (EC DG EA), during January-June 2011 (only 6 questions were considered relevant). The aim was to reveal the 14.18 years old students attitudes and
perception towards PA and Sport. Results show that: 14.21% engage with PA and sport regularly despite their PA school program. 39% engage with one kind of PA or sport during the week and also 36% are active rarely. B have a higher activation indicator (19.78%) compared with G (9.88%). They are active mostly “for fun” with 35.87% and for “improving their physical image” with 33.08%. Lack of free time (53.57%) and the lack of sport facilities (20.43%) are the main reasons why they don’t engage with PA and sport despite their sport school program. There is a lack of information regarding the benefits of participation in PA and sport for this age. It is very necessary that the local or governmental authorities to create extracurricular PA programs and to offer more sport facilities and opportunities for this group-age. More studies focused on this group age are necessary in order to evaluate which is the most proper PA program for this group-age.

Kumar and Singh (2011) conducted a study to investigate the attitudes toward physical education and sports of secondary school students related to gender and age. The participants were 302 female (Mage = 13.11 ± 0.79) and 332 male (Mage = 13.14 ± 0.69) students from secondary school education aged 12 to 14 and. A total of 634 students voluntarily participated in this study. The Attitudes Toward Physical Education Scale (ATPES) was applied. ANOVA was used to determine differences in attitude toward PE and between girls and boys. In order to test differences in PE class preferences of students with regard to school context and gender, chi square analysis was conducted. Men scores of ATPES for secondary school were determined 3.95 point, 4.01point, and point, respectively. Generally of secondary school students (%66.6) preferred coed physical education class preferred single-sex physical education class. This research verifies that attitudes towards physical education and PE class preferences change according to gender and age.

Graham et al. (2001) carried out a study to determine whether adolescent attitudes towards sports, exercise, and fitness predict moderate-to-vigorous physical activity 5 and 10 years later. A diverse group of 1902 adolescents participating in Project Eating and Activity in Teens reported weekly moderate-to-vigorous physical activity and attitudes toward sports, exercise, and fitness in Eating and Activity in Teens-I (1998-99), Eating and Activity in Teens-II (2003-04), and Eating and Activity in Teens-III (2008-09). Mean moderate-to-vigorous physical activity was 6.4, 5.1, and 4.0 hours/week at baseline, 5-year, and 10-year follow-up, respectively. Attitudes
Review of Related Literature

toward sports, exercise, and fitness together predicted moderate-to-vigorous physical activity at 5 and 10 years. Among the predictors of 5- and 10-year moderate-to-vigorous physical activity, attitude's effect size, though modest, was comparable to the effect sizes for sports participation and body mass index. Adolescents with more-favorable attitudes toward sports, exercise, and fitness engaged in approximately 30%-40% more weekly moderate-to-vigorous physical activity at follow-up (2.1 hour/week at 5 years and 1.2 hour/week at 10 years) than those with less-favorable attitudes. Adolescents' exercise-related attitudes predict subsequent moderate-to-vigorous physical activity independent of baseline behavior suggesting that youth moderate-to-vigorous physical activity promotion efforts may provide.

Howard et al. (2011) Identifying and understanding correlates of school children's physical education activity participation are critical to promoting current and lifelong physical activity participation of children. Among other factors, children's attitudes are considered to be a key element influencing physical activity participation. Children who have more positive attitudes toward physical activity are reported to be more likely to participate in physical activity outside of school and demonstrate higher physical activity amounts than those with less positive attitudes. Fostering children's positive attitudes toward physical activity would be conducive to the promotion of current and lifelong physical activity participation of children. Aims at to examine high school students' attitudes toward Physical Education Activity (ATPEA) and their sports activities preferences. Participants were 1,317 students in grades 9-12th (603 boys and 714 girls) from five urban public school districts. The Physical Education Activity Attitude Scale (PEAAS) adapted version was employed for data collection. One-way ANOVA revealed that the five highest scores were Items 2, 16, 11, 18 and 5 on the PEAAS. The overall mean score (70.160±3.948) indicated positive ATPEA for the participants. The independent group ANOVAs identified significant (p<0.01) differences in ATPEA scores with respect to participants' gender, ethnic group and Socio-Economic Status (SES). Girls scored higher than boys in Items 2, 13 and 15. Caucasian students scored higher than other four ethnic groups in Items 8 and 10. Students with middle SES scored higher than students with low and high SES in Item 2. The current ATPEA status of the participants appears to be positive. There are some crucial factors that structure the participants' ATPEA. These
factors are related to students' perception, benefit, care and value about physical education programs and sports activities.

Orunaboka (2011) carried out a study to find the relationship between secondary school students’ attitudes towards physical education and their achievement in the subject. Two instruments were used; Physical Education Achievement Test (PEAT) and Physical Education Attitude Scale (PEAS) for data collection. Three research questions guided the study. 112 physical Education students from 40 secondary schools in the South-South Geo-Political zone (Niger Delta States) of Nigeria (Rivers State, Abia State, Imo State, Akwa Ibom State, Cross River State, Delta State, Edo State and Bayelsa State). The collected data were analyzed using mean score and t-test statistics. It was found that most students exhibit negative attitudes towards physical education while positive relationship was expressed between students’ attitudes and their achievement in the subject. Based on the findings, four (4) recommendations were made for an improvement.

Udaji et al. (2011) conducted a study to find out the attitudes of principals of different colleges of Gujarat towards physical education and sports. A total of 348 principals have selected randomly as subjects for the purpose of the study. Questionnaire was constructed and developed by the research scholar in consultation with the subject experts. All the essential items regarding attitude were incorporated in the questionnaire. The questionnaires were administrated to subjects through contact. Detailed instructions were explained well to the subject before administration of the questionnaire to assure them that the responses given would be kept strictly confidential and utilized for the research purpose only. On the basis of researcher’s own experience, expert’s opinion and available literature it was hypothesized that there would be no significant difference between attitudes of subjects towards physical education and sports. The study has revealed that the principals of North Gujarat have more positive attitudes towards physical education and sports than the principals of Central Gujarat. The principals of North Gujarat are having more positive attitudes towards the physical education and sports than the principals of Saurashtra.

Shields et al. (2011) examine whether physiotherapy student attitudes towards the barriers to exercise for adolescents with Down syndrome changed as a result of
participating in a 10-week exercise programme. Data were collected as part of a randomized controlled trial. Twenty physiotherapy students (2 men, 18 women; mean age 19.5±1.3 years) volunteered to act as mentors. Each mentor was matched with an adolescent with Down syndrome from the same metropolitan suburb, who had been randomly allocated to either the intervention or the control group. The 10 adolescents and students in the intervention group all completed a 10-week, twice a week progressive resistance exercise training programme. The 10 adolescents and students in the control group continued with their usual activities. The students completed the 18-item Exercise Barriers Scale at baseline and after 10 weeks. There was a positive change in attitudes, significant at the p <0.05 level, favoring the intervention group on 9 of the 18 items on the Exercise Barriers Scale. After engagement in a 10-week exercise programme with an adolescent with Down syndrome, physiotherapy students identified fewer barriers that would prevent adolescents with Down syndrome from exercising. Results indicate that contact with adolescents with Down syndrome during clinical placement can positively influence attitudes towards exercise for people with Down syndrome among physiotherapy students.

Bahram et al. (2011) carried out a study 368 Students of Islamic Azad University at Roudehen branch was examined in 4 groups. A researcher-made questionnaire (Cronbach's alpha coefficient = 0.93) which measures 6 components of attitude toward sport including Social experience, Health and fitness, Pursuit of vertigo, Aesthetic experience, Catharsis, and Ascetic experience was used for data collection. Results illustrated that members of university athletic teams had stronger attitudes toward sport in total and in 5 components of that (except pursuit of vertigo component). Kruskal-Wallis test showed that these differences between groups were not significant except in the component of “pursuit of vertigo” (P = 0.009). Factor such as marriage status, sport expenses, family income, family size hadn’t any effect on attitude toward sport but in “pursuit of vertigo” component there was a significant difference between different age groups (P = 0.023).

Amanda et al. (2010) investigated relations between implicit and explicit attitudes toward physical activity, as well as the role of individual differences in introspective access as a possible moderator of implicit–explicit attitudinal concordance. The design was non-experimental and involved self-report and behavioral measures. Undergraduate students (N = 203) completed explicit measures
of attitude towards physical activity and its outcomes. They also completed a Single-Category Implicit Association Test adapted to assess implicit evaluative attitude towards physical activity. Implicit and explicit attitude towards physical activity attitude towards physical activity were unrelated and neither private self-consciousness nor private body consciousness moderated the relation. These findings support the theory that implicit and explicit attitude towards physical activity is independent systems. We discuss the implications of these findings for physical activity promotion efforts.

Eun-Ok et al. (2010) presents a situation specific theory the Midlife Women's attitude towards physical activity (MAPA) theory that explains how women's attitude towards physical activity influence their participation in physical activity. Using the integrative approach of Im, the theory was developed based on the attitude, Social Influence, and Self Efficacy Model; a review of the related literature; and a study of women's attitude towards physical activity. As a situation-specific theory, the MAPA theory can be linked easily to nursing practice and research projects related to physical activity in midlife women, especially interventions aimed at increasing midlife women's participation in physical activity.

Pantelis et al. (2010) conducted a study to assess the attitudes of Greek prisoners regarding physical activity and sports. A total of 308 male adult Greek prison inmates participated voluntarily, from three Greek prisons. Exploratory factor analysis revealed 3 factors consisting of 11 physical activity and sport items that explained 51.75% of the total variability. These factors were named: a) «need for physical activity» (7 items), b) «physical activity before and during imprisonment» (2 items), and c) «non - participation in physical activity» (2 items). The internal consistency for the whole scale was .70, while reliability indexes ranged from .88 to .58 for the three factors. Results showed that Greek prisoners identified the neediness for physical activities and sport during imprisonment and rated high the respective items. Overall findings showed that the new questionnaire, named Attitudes Towards Physical Activity of Greek Prisoners (ATPA - GP) may be perceived as a reliable and valid instrument to identify the attitudes of Greek prison inmates towards physical activity and sports. Further research is required to confirm the present findings, with a wider sample, using confirmatory factor analysis, examining the differences across gender, age, marital status, type of prison, sentence, etc.
Damien et al. (2009) conducted a study with the purpose to determine the attitudes held towards physical activity of a select group of parents/guardians who had children enrolled in a youth sports program in a small non-urban state located in the Mid Atlantic region in the United States. Parents/guardians \((N = 83)\) completed the Attitude Towards Physical Activity Scale (ATPA; Kenyon, 1968) to determine if their a) involvement in physical activity, b) participation in physical activity and c) attitude towards physical activity were dependent on gender and Wellness lifestyles (smoking and weight management). Chi-square analyses and repeated measures ANOVAs were conducted to evaluate the hypotheses. Results revealed that gender was independent of parents/guardians involvement and participation in physical activity. Parents/guardians who did not consider themselves "normal weight" rated their participation in physical activity as the same or less in comparison to others of the same age \(\chi^2 (4, n^82) = \{.907, p < .05; \text{cc} = .328\}\), Finally, results revealed that parents/guardians participated in physical activity tor reasons \(F(2,69) = 56.608, p > 0.05, t S = 0.427\), Overall it was found that women were more motivated than men to participate in physical activity for aesthetic and social reasons and least motivated for vertigo reason, while men were more motivated than women to participate in physical activity for vertigo, catharsis, and health reasons.

Gutierrez & Ruiz (2009) examine the relations among students' perceptions of motivational climate, sportmanship attitudes, and attitudes toward content and teachers in physical education. 910 secondary school students ages 13 to 16 years \((M=14.3, SD=1.1)\) completed Spanish translations of L'Echelle de Perception du Climat Motivational by Biddle, et al., the Multidimensional Sportsperson ship Orientations Scale by Vallerand, et al., and the Student Attitudes toward Teacher and Program in Physical Education by Luke and Cope. Structural equation modeling showed that perceived mastery climate is a predictor of students' attitudes toward teacher and content and positive sportmanship attitudes. In contrast, perceived performance climate was not a predictor or mainly predicted negatively the students' attitudes toward the physical education teacher, content, and sportmanship attitudes. These findings are discussed with regard to the implications for physical educators.

Lise (2009) examined the relationship between participation in organized youth sport and attitude to physical education (PE) during adolescence and physical activity in young adulthood. The sample comprised 630 participants who completed
questionnaires over a 10-year period. Analysis of variance and regression were used to examine the relationship between attitude to PE and participation in organized sport at age 13 years and physical activity at age 23 years. Both genders had a consistent and positive attitude toward PE at age 13—16 years. More boys participated in organized youth sport, and participation rates declined from age 13 to 16 years. Participation in organized sport was the strongest predictor of physical activity at age 23 years in males, whereas attitude to PE was the strongest predictor in females. Participation in sport and physical activity in different areas during adolescence may affect participation differently in young adult men and women.

Ramiz (2009) conducted a study to investigate attitudes toward physical education and class preferences in Turkish secondary and high school students related to gender and age. In spite of the growth in the studies on the effectiveness of PE, sport science literature that have investigated students’ attitudes toward PE and on PE class preferences according to age and gender are limited. The study was conducted during the 2006 2007 fall semester. Participants consisted of 1240 students from seven secondary and six high general schools of Bursa/Turkey. In this study, coeducational secondary and high schools were selected. The participants were 302 girls (Mage = 13.11 ± 0.79) and 332 boys (Mage = 13.14 ± 0.69) aged 12 to 14 from secondary education schools and 290 girls (Mage = 16.48 ± 0.86) and 316 boys (Mage = 16.42 ± 0.90) aged 15 to 17 from high schools. Two data collection instruments were administered. In the first section of the first personnel information, participants provide demographic related information such as age, grade, and gender. In the second section participants were asked: "Which PE class do you prefer? Coed PE or Single sex PE." The second instrument is the Attitude toward PE Scale for Turkish students. Findings of this study indicated a significant gender difference in high school students attitudes toward PE (F = 29.361; p <0.01). The attitude mean scores of boys (M = 3.77) were higher than those of girls (M = 3.40). Whereas secondary school girl and boys students scores on the attitude toward PE Scale were similarly (F = 2.158; p >0.05. The attitude scores of secondary school boys and girls respectively was (M = 4.01) and (M = 3.95). In addition, the attitude scores of secondary school boys (M = 4.01) were significantly higher (F = 26.245; p<0.05) than those of high school boys (M = 3.77), and the attitude scores of secondary school girls (M = 3.95) were significantly higher (F = 33.752; p<0.05) than those of high school
In order to test differences in PE class preferences of students with regard to school context and gender, chi square analysis was conducted. Significant differences in PE class preferences were found between students from secondary and high schools (E2 = 62.634; p <0.05). Most of the students from secondary schools (66.6%) preferred single-sex PE, whereas nearly most of the students from high schools (69%) preferred coed PE. This research verifies that attitudes towards physical education and PE class preferences change according to gender and age. Secondary school students show more positive attitudes towards physical education than high school students. Boys show more positive attitudes than girls. In addition secondary school students preferred single-sex PE, whereas high school students preferred coed PE. In order to improve the attitudes of girls towards physical education, Ministry of National Education have to make some changes in physical education course curriculum. This change has to be from competitive physical education course model to a model that encompasses life-time sport, health, physical fitness, and well-being. Physical education course curriculums should be re-arranged to enable students to obtain necessary knowledge, skills and attitudes for a healthy and happy daily life. Moreover, all students must have the confidence and skills to continue physical activities in their future lives.

Jewson et al. (2008) to explore a range of factors that influence participation in physical activity for a group of women who are overweight. Participants were 30 women, aged 25-71 years, with a mean age of 46.8 years (+12.95) and an average BMI of 31.2kg/m(2) (+5.6). Self-reported level of physical activity, perceived barriers and facilitators of physical activity, attitudes, intentions and perceived behavioral control to physical activity were measured. Seventeen participants were generally active, with self-reported moderate physical activity of 218.53min (+/-113.82) in the last 7 days; whereas 13 participants were reportedly less active 43.46 (+/-42.98)min. Active participants were more likely to identify social reasons for participating in physical activity, while inactive participants perceived that their laziness prevented them from being physically active. There were no significant differences between active and inactive overweight women for attitude, intention or subjective norm for moderate-intensity physical activity. There was a significant difference between these women in perceived behavioral control (p=.014) for moderate-intensity physical activity, as women who felt more in control of their physical activity behaviour were
more likely to engage in physical activity than inactive women. Future research should investigate interventions to increase behavioral control of moderate-intensity physical activity in women who are overweight.

Lipovec & Uibi et al. (2008) deals with the influence of authorship of electronic learning resources on teacher competences. Interactive e-learning resources in Slovenian school system are usually written by at least two persons; one of them is a teacher who provides content, the other is a computer expert who enables the content to work in a virtual learning environment. The paper argues that the teacher and the computer expert should be one and the same person or more precisely; the teacher should gain adequate knowledge to write his resources alone. In order to provide an argument that this is possible, we describe the E-um project which follows such principles. Gathered empirical data support the hypothesis that authorship positively affects the technological, pedagogical and mathematical knowledge of teachers - authors.

Bibik et al. (2007) carried out a study to understand high school students' attitudes and perceptions toward physical education since they will be future members of the workforce who will need to use their knowledge to maintain a healthy lifestyle. Content standards are intended to assure that all students meet minimum curricular requirements, however, if students do not find physical education valuable, the content standards may have no meaning either. High school students' attitudes toward their physical education programs in the state of Delaware were studied. These results provide a baseline for further examination of curriculum after implementation of state content standards. The students (N =223) attitudes were measured using a 31-item survey. Results indicated approximately 45% of the students would enjoy having more sports or games in their physical education curriculum. The majority (74%) of the students indicated they preferred coeducational classes and 64% preferred working with other students of similar abilities. 43% of the students also indicated that physical education was important to their high school education, rating it just after math, English, and science. Correlation tests revealed that the majority of students who indicated they enjoyed physical education were more likely to enjoy school (p<.001). Students who engaged in negative health behaviors, that is, smoking, drinking, or using drugs, were less likely to enjoy physical education (p<.005). These findings are important for designing meaningful high school physical education
learning experiences that meet state content standards and for influencing students to continue participating in physical activity.

Doran & Obrien (2007) conducted a study on women from different cultural groups as well as with Anglo-Saxon women. Indigenous women and women from Pacific Island background were selected because of their high rates of gestational diabetes (the most common complication of pregnancy), of which physical inactivity is a risk factor. Four focus groups of two to five members were held to explore women's opinions about physical activity during pregnancy. Two specific cultural focus groups were organised with women of Western Samoan background and Indigenous women. The other two groups included women from the broader community. The women were concerned that they had not received enough information from various health agencies and agents during pregnancy. The women identified several benefits and barriers to physical activity when they were pregnant and explained how they felt about physical activity when pregnant. There were minimal differences between cultural groups in the women's voiced opinions. The themes derived from focus groups provide a snapshot of women's attitudes towards pregnancy and physical activity. Few women had a clear understanding of how physical activity should be incorporated in the gestational lifestyle period.

Prithvi & Stephan (2007) carried out a study to determine middle school students’ attitudes toward physical education using an attitude instrument grounded in attitude theory. In addition, this investigation also sought to ascertain if gender and grade level influence student attitudes toward the subject matter. Participants for this study were 995 students from grades 6 to 8. A previously validated attitude instrument based on a two-component view of attitude with scores that showed evidence of reliability and validity was used. Overall all students had moderately positive attitudes toward physical education. There was, however, a decline in attitude scores as students progressed in grade level. Higher grades had lower mean scores.

Christodoulos et al. (2006) examine the short term effects of a health education programme on Greek primary schoolchildren. The school based intervention programme was applied to 29 children in the 6th grade of the 2nd Primary School of Agios Stefanos (12 000 inhabitants); 49 pupils from the 1st Primary School constituted the control group. To assess the effectiveness of the
intervention, attitude and behavioural variables were measured before and after the intervention. After adjustment for initial differences in the assessed variables, pupils who took part in the intervention had more positive attitudes towards physical activity than the control group and scored significantly more highly on their intention to participate in physical activity. Moreover, pupils in the intervention group reported more hours/week spent in organized physical activities than pupils in the control group (mean (SD) 3.54 (0.32) v 2.54 (0.26), p<0.020). Finally, a higher proportion of pupils in the intervention classes matched the recommendations of 60 minutes of moderate to vigorous physical activity daily (77.4% v 55.1%, p<0.043). Within the limitations of the study, the data show that school health education programmes have the potential to slow the age related decline in physical activity and help pupils establish lifelong, healthy physical activity patterns. Promoting healthy habits and physical activity behaviours during childhood may prevent some of the leading causes of morbidity and mortality in the Greek population, and also decrease direct healthcare costs and improve quality of life.

Deforche et al. (2006) conducted a study to investigate differences in physical activity and attitude toward physical activity in adolescents with different degrees of overweight and explore whether the prediction of physical activity by attitude is moderated by level of overweight. Subjects were divided into a normal-weight group (n = 37, 18.8 +/- 1.2 kg/m2), an overweight group (n = 28, 25.9 +/- 1.3 kg/m2), and an obese group (n = 24, 33.7 +/- 4.1 kg/m2). Mean age was 14.6 +/- 1.2 years, with 72% girls. Physical activity was estimated using the Baecke Questionnaire. Attitude was measured by assessing perceived benefits and Barrie Participation in sports was higher in normal-weight compared with overweight (p < .05) and obese (p < .01) subjects. There was no difference in leisure-time physical activity between groups. Perceived benefits did not differ between groups, but normal-weight subjects perceived less barriers ('physical complaints', 'not being good at it', 'insecure about appearance', 'not liking it') than their overweight (p < .05) and obese (p < .001) counterparts. Obese adolescents had a less positive attitude compared with their normal-weight (p < .001) and overweight (p < .05) peers. Sport participation was significantly predicted by the perceived benefit 'pleasure' (p < .05) and by the perceived barrier 'not liking it' (p < .001), after taking into account level of overweight. The association between sport participation and attitude was not
moderated by level of overweight. This study demonstrates that overweight and obese adolescents show lower sport participation and have a less positive attitude toward physical activity. Interventions in youngsters with weight problems should try to increase participation in sports by making activities more fun and attractive for these youngsters.

Kocak & Hurmeric (2006) conducted a study to investigate the attitudes toward physical education in a sample of primary school students and examine the predictive influence of students' sex, grades in physical education classes, and parents' education and socioeconomic status on students' attitudes. Participants, 963 (474 girls and 489 boys) primary school students from Grades 6 (12.7%), 7 (10.3%) and 8 (77%), completed the Wear Attitude Inventory. Analysis indicated students had positive scores on General Attitudes rather than on Social, Emotional, and Physical Attitudes. In addition, girls (M = 32.6, SD = 3.9) had more positive General Attitudes than boys (M = 32.0, SD = 4.6). Also, students' grades in physical education classes were statistically significantly related to their Attitudes toward physical education (Wilks lambda, F1, 1110 = 2.88, p < .05). However, parents' education and socioeconomic status were not. One may infer that ways of encouraging more favorable attitudes might be planned.

Linda & Dominique (2006) examined attitudes of high school students toward fitness and sports activities taught in physical education, and the perceived effectiveness of their physical education curriculum for improving their fitness and skill levels. Students from six high schools and 17 intact physical education classes agreed to participate. Data were collected using a questionnaire completed by 515 students, 159 of whom participated in focus group interviews. Results indicated student preference for a wider variety in sport and fitness activities, an increase in level of challenge in physical education classes, and an increase in student motivation for participating in activities outside of school. Student attitudes were accepting or tolerant of participation in fitness activities due to known health benefits. Most students liked physical education class that included some form of game play. In addition, they stressed the need for adding interesting activities that included active participation while having fun. Student recommendations included strategies for improving instruction and for grouping students by skill levels for appropriate challenge.
Alley & Hick (2005) examined the gender stereotypes in peer ratings of femininity and masculinity for adolescent participants in three sports. Following a preliminary study of gender stereotyping of several sports, high school students rated unfamiliar cohorts each of whom was described in a single paragraph as either a male or female dedicated participant in one of three sports. A total of 12 different descriptive paragraphs were used in a 2 (race) x 2 (sex) x 3 (sport) design. Each of these paragraphs, although short, ascribed a variety of traits that could be seen by raters as the independent variables: name (initials only), age, race, gender, hours of practice per week, number of competitions/performances per year, sport, and self-confidence. For this reason, raters were highly unlikely to surmise that sex and sport were the primary independent variables in the study. As predicted, there was a consistent decrease in rated femininity and increase in masculinity for both male and female adolescent targets as they switched from participating in a "feminine" (ballet) to a neutral (tennis) to a "masculine" (karate) sport. These results suggest that sex stereotypes for certain sports may influence who elects to participate and how participants are viewed by others.

Robazza & Bortali (2005) evaluate the effectiveness of an intervention programme in the physical education setting designed to change attitudes and emotions triggered by potentially risky motor tasks. The individual zones of optimal functioning (IZOF) model were used as a theoretical framework for the study. Italian male and female high school students (N = 84) took part in a 12 lesson intervention and in test-retest sessions. The assessment was conducted using the Motor Activity Anxiety Test to measure the students' approach-avoidance attitudes in the face of physical education tasks purported to engender strong emotional reactions. An idiosyncratic emotional profile was also implemented using a list of pleasant/unpleasant emotional adjectives. Two experimental groups were involved in the learning and performing of several potentially risky, highly emotion-arousing tasks, while two control groups were engaged in low-risk team sports. According to the hypothesis of the study, the programme was effective in decreasing the students' avoidance tendencies towards thrilling tasks and in increasing optimal-pleasant emotions. Our findings also demonstrated the feasibility and utility of applying the IZOF model to the context of physical education.
Koca & Demirhan (2004) assessed attitudes of high school students toward physical education with regard to sex and sport participation. A total of 440 sport participants (175 girls and 265 boys) and of 427 nonsport participants (227 girls and 200 boys), all of whom were 15 yr. old, voluntarily participated. The Attitudes Toward Physical Education Scale was administered to assess participants’ attitudes toward physical education. The results of 2 x 2 (Sex x Sports Participation) analysis of variance indicated a significant difference in attitudes toward physical education between sport participants and nonsport participants, with the former scoring higher, and a difference between boys and girls, with boys scoring higher. However, there was no significant interaction between sex and sports participation on attitudes toward physical education. In general, sport participants had more favorable Attitudes Toward Physical Education scores than nonsport participants, and high school boys scored significantly higher than girls. There was a significant difference in Attitudes toward Physical Education scores between female and male high school students, with boys having more favorable attitude scores.

Stelzer et al. (2004) investigated the attitude toward physical education of 1107 high school students from four countries, Czech Republic, Austria, England, and the United States. Survey data were gathered and measured using the Adams Scale survey instrument (Adams, 1963). While the data revealed individual differences, the overall sample indicated a decidedly positive attitude toward physical education. Students from the Czech Republic had significantly higher attitude scores than both U.S. and English respondents (p < .001), and males showed a more favorable attitude toward physical education than females (p < .001). Several notable differences were also found when the combined effect of gender and country of origin was measured.

Eva et al. (2003) conducted a study with the aim to describe variations in attitudes to physical activity in a group of people with RA. Sixteen people with RA were chosen to represent various ages, genders, disease duration, functioning, and health habits. Semi-structured, in-depth interviews were carried out, transcribed, qualitatively analyzed, and categorized on the basis of similarities and differences. The analysis indicated that attitudes toward physical activity could not be understood without inclusion of attitudes toward the disease and sometimes to life in general. Two dimensions of attitude, motivation and satisfaction, were identified. Four categories were revealed: motivated and satisfied, unmotivated and satisfied,
motivated and dissatisfied, and unmotivated and dissatisfied, each representing different attitudes to physical activity. Our findings stress the importance of developing different educational interventions that address attitudes to physical activity in order to implement a healthy lifestyle in individuals with RA.

Pritchard (2002) assesses how parents, students, and teachers in secondary schools in England perceive physical education needs. Includes eight economic planning regions in England, and focuses on ten rural and ten urban secondary schools in each region. Students (n=277) in the fifth year of secondary education, teachers (n=296) who contribute to the physical education program, and parents of the students (n=269) respond to a questionnaire. Finds that the total sample mainly values physical education for the improvement of personal health and fitness, and for the development of good sporting behaviour. All subjects indicate that the main aim of physical education should be to engender strengths of interest, enjoyment, and involvement in physical activity, with opportunities for the potentially physically able to achieve success, skillfulness and superiority in sport.

Hicks et al. (2001) investigate the attitudes children have towards physical activity and whether boys and girls differ significantly. Sex differences were hypothesized on one or more of the sub domains of Grade 3 Children's Attitudes toward Physical Activity inventory. The 46 boys and 51 girls ranged from 8 to 10 years of age. A multivariate analysis of variance indicated a significant effect for sex, and subsequent univariate analysis indicated that the boys had significantly lower scores than the girls on the Aesthetic subscale. Results were discussed in terms of attitudes about activity in physical education classes and continued research with younger children.

Kearney et al. (1999) identify the data on consumer attitudes towards and beliefs about physical activity, body weight and health among the 15 countries of the EU. A cross-sectional study to get a picture of the attitudes to physical activity, body weight and health in the EU. For this, it was considered important that samples be nationally representative so that inferences drawn from the data could be applied to the population in each country as well as to the EU population as a whole. Using non-probability sampling method employing quota controls (and the national weight) we obtained large sample sizes from each country which were nationally representative in
terms of the variables age, sex and regional distribution. To ensure samples were truly nationally representative a national weight was used when analyzing the data using the same characteristics as those used to define quotas. When examining pooled estimates for the total EU sample a population weight was applied. In total, 15,239 subjects aged 15 years and upwards in the EU completed the survey. This article gives details on the methods used in carrying out the survey from design of the questionnaire to sample selection, questionnaire administration and analysis of the data.

Ito et al. (1999) conducted a study, on 291 Japanese high school students (age=15 or 16) responded to attitude questionnaires. The questionnaire focused on demands of students for physical training, points to improve in teaching of physical education, degree of satisfaction with lessons, and awareness of the benefits of their lessons. The following results were obtained. 1. Most high school students in our sample had positive attitudes toward sports, but were critical of how physical education was taught. The majority also felt that teachers over-emphasized individuality and competition in class. Students also tended to feel that evaluation and grading should be improved. 2. Students recognize that in addition to acquisition of sports skills, physical education can serve to teach group skills and attitudes toward health. But they did not recognize a scientific understanding of health as an objective of physical education. 3. Students expressed a strong desire for autonomous and cooperative learning methods. 4. As to gender differences, female students tended to respond that they were not good at sports, and had a relatively non-competitive orientation. To integrate high school physical education into lifelong physical education, teachers must consider how to cultivate the flexible attitudes and skills of each student. It is important to have a flexible curriculum so that students can freely select activities they like.

Lindy (1998) assessing parent attitudes toward physical education is important in determining whether students are projecting their own attitudes toward physical education or simply reflecting the views of their parents. The purpose of this study was to identify the attitudes of middle school students and their parents toward physical education and to examine the relationship between them. In addition students and parent’s gender, ethnicity, and socioeconomic status were examined with relationship to their attitudes. Subjects in this study were 207 seventh-grade students
who were enrolled in physical education during the spring semester of 1996-1997, at an urban middle school in Northern California. The 207 parents represented in this study were the adult person or persons who were living at the child's principal residence or with whom they had the most significant contact. A 20-item questionnaire, the Physical Education Activity Attitude Scale (PEAAS), derived from theoretical attitude constructs (Mowatt, DePauw, and Hulac, 1988) was used to gain information about student and parent attitude toward physical education. The constructs used to organize sections of the questionnaire were related to (a) general attitude, statements representing one's personal feelings or attitudes toward physical activity; (b) physical education attitude, statements describing how one viewed physical education as an offering in the curriculum; and (c) scientific basis attitude, statements which describe how one assesses the scientific benefits of exercise. Results indicated that students' and parents' attitude toward physical education were significantly different in the over-all category scores and in the general attitude and scientific basis construct areas. No significant differences were found between gender, ethnicity and socioeconomic status on attitudes toward physical education.

Martin et al. (1997) investigated the relationship between attitude towards physical activity and physical activity behaviour and the influence of gender and season on physical activity level in 45 primary school children, aged 9 to 11 years. Attitudes towards physical activity were assessed using two different theoretical approaches: the children's attitudes towards physical activity (CATPA) inventory and the theory of reasoned action (TRA) questionnaire. Physical activity behaviour was measured using Cale's (1994) self-report measure of physical activity. Approximately 50% of the children were categorized as 'inactive' based on cut-off points developed by Blair (1984). A 2 x 2 (gender x season) factorial analysis of variance showed that children participated in more moderate physical activity in the summer than in the winter ($F(1,44) = 6.29, p<.05$) but there were no gender differences in physical activity levels. Descriptive statistics for the CATPA inventory showed that children generally exhibited positive attitudes towards physical activity. Mann-Whitney U tests for two independent samples revealed significant differences between the high-active and low-active children for the catharsis, health and fitness, vertigo and aesthetic sub domains from the CATPA inventory ($p<.05$). None of the TRA variables showed any significant differences for activity level. Present results suggest that some attitude
variables from the CATPA inventory differ according to children's physical activity levels and thereby emphasis the need for physical educators to foster positive attitudes towards physical activity in order to encourage children to adopt and maintain healthy and active lifestyles.

Tannehill & Zakrajsek (1993) carried out a survey of 30 Asian-American, 35 African-American, 179 Hispanic-American, 113 Anglo-American, and 6 mixed ethnic background students in Grades 6-12 concerning their attitudes toward physical education and sport. There were 286 girls and 80 boys in the sample. In general, Ss believed that physical education is important to their overall education, and they liked physical education for the fun they derived from it. Many Ss indicated fitness and fitness activities as unimportant and among the most disliked activities. Middle school Ss indicated more frequent involvement in competitive sports. High school Ss were more receptive to fitness activity than were middle school Ss. African-American Ss competed most frequently with church leagues. Boys and Asian-American Ss were more opposed to dance. African-American Ss indicated the importance of teamwork but not of sportsmanship.

Adams & Brynteson (1992) conducted a survey on alumni attitudes about their college physical education activity (PEA) program and current exercise habits. The survey was sent to a representative sample (N = 3169) of alumni who had graduated between 1970 and 1984 from four private colleges. The percent returned was 48, 31, 43, and 41 from Colleges A-D, respectively. Three of the four colleges had required PEA programs. College A had an eight-credit-hour requirement, College B required four credit-hours, College C required two credits, and College D did not have a PEA requirement. Results indicated a significant difference among the four colleges in the alumni's perceived value of their college PEA program in terms of its contribution to their knowledge about fitness, attitude towards fitness, and current exercise habits. Additionally, alumni differed in their perception of the health value of exercise and in their frequency of weekly exercise. When alumni exercise behaviors were quantified by aerobic points and classified according to type of activity, no statistically significant differences were found. The conclusion of the study was that the attitudes and exercise behaviors of alumni are related to the type of college PEA requirement; however, aerobic points earned are not affected. Students graduating from colleges...
with higher PEA requirements demonstrate more positive exercise attitudes and behaviors.

Birtwistle & Brodie (1991) conducted a study to find the attitudes towards activity (CATPA) and perceptions of physical education of a sample of 291 secondary and 316 primary boys and girls were investigated with respect to health promotion. Using analysis of variance techniques significant differences between boys' and girls' attitudes were found in both the secondary and primary samples. Girls had significantly more positive attitudes towards physical activity than boys, but the data yielded no differences in attitudes between the socio-economic levels. The influence of CATPA scores of the literacy sets variable was significant, but the numeracy sets variable yielded non-significant results. This result highlighted the implications of internal school organization for health promotion and children's affective development. MANOVA was used to analyses gender differences in CATPA sub domain scores. Girls from both samples were found to have significantly more positive attitudes than boys in the aesthetic domain. Differences were also found in social growth and vertigo scores. All groups ranked health and fitness objectives highly, with a similar pattern of pupil perceptions of physical education emerging from both samples.

Moria & Grey (1991) examine the potential determinants of male and female adolescents' attitudes toward school physical education. Students (N=488), randomly selected from four large metropolitan schools, were asked to comment on their school physical education experience from kindergarten through Grade 10. A systematic content analysis was used to categorize these responses. Three main questions were addressed: What factors in the K-10 physical education experience of male/female students contribute to the development of positive/negative attitudes toward physical education? Are these factors different for males and females? Are they different for students electing to take school physical education? Five main determinants of attitude were identified in ranked order: curriculum content, teacher behavior, class atmosphere, student self-perceptions, and Facilities. Overall, male and female students identified the same determinants in the same order of priority.

Stewart & Green (1991) Investigates the general attitudes of Midwest junior high and senior high school students toward physical education. Analysis of data
using crosstabs and analysis of variance (ANOVA) techniques; Fitness, skill and social domains as important aspects of the physical education curriculum.

Patterson & Faucatle (1990) examined whether there were differences in attitudes toward physical activity for children in classes taught by specialists vs. those taught by nonspecialists. 414 4th- and 5-grade children from 4 schools participated in the study. Two schools had 4 physical education (PE) specialists teaching the PE classes while the other 2 schools had 7 classroom teachers. Attitudes were assessed using the Children's Attitude toward Physical Activity inventory. Results suggest that teachers play a minimal role in children's attitudes toward physical activity.

Toon & Green (1990) attitudes of 381 handicapped and no handicapped high school students toward physical education in mainstreamed classes were compared using measures from the Kneer Attitude Inventory and Diagnostic Statements. A two-way analysis of variance yielded a significant difference between the groups' attitudes. Nonhandicapped high school students had significantly more positive attitudes toward physical education than their handicapped peers. No sex differences were significant.

McCready & Long (1985) examined the relationship between exercise adherence and the combined effects of locus of control and attitudes toward physical activity in 61 females (aged 15–57 yrs), voluntarily participating in 8–22 wk aerobic fitness programs. The Levenson Locus of Control Scales, an exercise objectives locus of control scale, and a children's attitudes toward physical activity inventory were administered to Ss. Findings indicate a weak relationship between adherence and the combination of locus of control and attitudes. Regression analysis revealed that social continuation and catharsis were the best predictors of exercise adherence. Ss who at the outset of the programs had a less positive attitude toward participating in physical activity for continuing social relations and a more positive attitude toward participating in order to reduce stress and tension tended to have a higher percent attendance. A description of the development of the exercise objectives locus of control scales and the scales themselves are appended.

Stuart et al. (1985) investigated motives for participation and attitudes about physical activity of male and female participants in fitness classes in the English West Midlands. six attitude sub domains were assessed using Kenyou’s 1968 Attitude Toward Physical Activity Inventory, while 12 motives were assessed using a separate
questionnaire. Men and women differed significantly in attitudes and motives which supported the choice of activity made by each sex, i.e., self-monitoring circuit training for men and expressive dance based fitness for women. Correlations calculated for each sex did not show associations between individual motives and attitudes. Research must address the issue of generalized attitudes about physical activity and their relation to motives.

Smoll & Schutz (1980) conducted a study to assess the attitudes toward 6 subdomains of physical activity were assessed across Grades 4–6 for a multiple longitudinal sample of 58 boys and 56 girls. The children's attitudes toward physical activity (CATPA) were generally positive for both sexes; and consistent with previous research, girls showed more favorable attitudes toward the esthetic sub domain than boys. However, boys evidenced significantly more positive attitudes toward physical activity as the pursuit of vertigo and as catharsis. Neither the among-grade comparisons nor sex-by-grade comparisons were significant, indicating stability in group attitude scores. However, correlation analyses indicated the lack of stability of CATPA within individuals across grades. Factor analysis provided further evidence negating the assumption of CATPA as an enduring behavioral disposition.