DETERMINING THE RELATIONSHIP BETWEEN
THE BODY IMAGE OF ADOLESCENT GIRLS
AND THEIR ACADEMIC ACHIEVEMENT,
SOCIAL INVOLVEMENT AND SPORT
PARTICIPATION: A PILOT STUDY

by

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To God Almighty my humble gratitude for giving me the strength and courage to persevere.
Ever since the earliest times much emphasis has been placed on the physical appearance of women. Particularly in western cultures idealized images of perfection are constantly promoted and the message that comes across in various media outlets is that a woman ought to have a 'perfect' appearance in order to be competent and desirable. This puts a great deal of stress on women and particularly on adolescent girls who are going through a phase of increased sensitivity about their appearance.

The literature suggests that people, and women in particular, are fundamentally affected by the way they view their bodies. The body image furthermore has a strong relationship with the self concept, which affects other areas of a person's life such as her academic achievement and her social life. Against this background an attempt was made in this study to determine the relationship between the body image of adolescent girls and their academic achievement, their sport participation and their social involvement.

The subjects were 180 girls drawn from two rural secondary schools. The survey involved the completion of two questionnaires, namely an adapted form of the Physical Self Subscale of the Tennessee Self Concept Scale (used to determine a score for body image) and a questionnaire on social involvement and sport participation, which was drawn up by the researcher. Biographic data as well as academic scores were gathered from school records.

Data was analysed statistically by means of the BMDP Software Version 1990: programme (Sun Unix). Pearson's chi square tests of independence, as well as a one-way analysis of variance with co-variate were carried out.

The results reveal that the body image and academic achievement of this group of girls are not significantly correlated. There are, however, significant correlations between the body image and social involvement of these girls, between their body image and sport participation, as well as between their social involvement and sport participation.
These findings have important implications for education and consideration is given to addressing these issues in schools.
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1.1 Body Image

1.1.1 Introduction

In recent years much emphasis has been placed on the physical appearance of both men and women in western societies. Many people are concerned about looks and the media has contributed to this state of affairs. Society is presented with idealized images of what is attractive. An image of perfection is constantly promoted and the message given is that these beautiful people are desirable.

In this regard Gerdes & Moore point out that

... physical appearance is emphasised daily through numerous advertisements in the various media. The excitement which surrounds beauty competitions is further evidence of the value attached by society to physical beauty.

(Gerdes & Moore 1989:78)

This undue amount of emphasis placed on an attractive physical appearance has far reaching effects on the lives of many people. Adolescents, in particular, are under the impression that good-looking people are at the same time sensitive, kind, intelligent, competent and exciting (Napoli, Kilbride & Tebbs 1985:106). This is being confirmed by the tendency amongst attractive young people to form relationships, including relationships with the opposite sex, more frequently than their less attractive peers (Kallen & Doughty
1984:95). Physical appearance, and particularly the face and figure of girls, "prove to be much more influential over the lesser requirements of intelligence, character or personality" (Jensen 1985:103). Consequently, young people focus intensely on their appearance, forgetting that they have other talents and can be liked in their own right, without the perfect appearance as a prerequisite for acceptance.

Adolescents are particularly sensitive to pressures of this nature. During adolescence young people experience dramatic physiological, psychological, and social changes. The adolescent does not only ask "Who am I?" (Erikson cited by Byrne & Kelley 1981:69), but also "Do I look good?". For adolescents physical appearance seems to be of the utmost importance and one of the most serious problems to deal with (Jensen 1985:21). It is furthermore regarded as one of the most powerful influences upon adolescent popularity, peer acceptance, and self-evaluation (Adams cited by Jensen 1985:21; Jensen 1985:216; Littrell, Damhorst & Littrell 1990:77).

Acceptance by and conformity to the peer group are important and essential issues in the personal development of the adolescent. For most young people group standards are the norm, "even if these morals, opinions, thoughts and goals are very different from their own and may have a tragic effect on them" (Jensen 1985:99). They conform to these norms through their values, behaviour and dress (Jensen 1985:98), and this helps many young people to cope with the uncertainties of adolescence. Schonfield (cited by Collins & Plahn 1988:318) claims that "any deviation from the perceived ideal [which is mainly determined by the peer group] may result in feelings of difference and inferiority".

Coleman, (cited by Jensen 1985:100) claims that "conformity is at its height among the early adolescent group but that it diminishes significantly from about 14 or 15 on up". He furthermore suggests that, although the difference between the two sexes are not "unduly large", girls, "under some circumstances at least, appear to be more conforming than boys are..."

The adolescent years are of particular interest in research because of the dramatic physical changes that accompany puberty and their potential impact on the lives of adolescents. In addressing this issue Corey & Corey (1990:146) conclude that "if you feel basically
unattractive, unappealing, or in some other way physically inferior, these self-perceptions are likely to have a powerful effect on other areas of your life. Physical appearance, and in particular the physical self image, is thus a significant issue in the life of the adolescent.

Physical appearance is generally regarded as being more problematic to females although both boys and girls are subjected to the distinguishing changes which take place during puberty and to the effects these changes have on their lives (Littrell et al. 1990:78; Paxton, Wertheim, Gibbons, Szmukler, Hillier & Petrovich 1991:375-376). Both male and female adolescents are concerned about their physique, but girls seem to be more critical about and also less satisfied with their appearance than their male counterparts. Researchers have shown that even before puberty, beauty and appearance are important aspects of the female role (Moracco & Camilleri cited by Kelson, Kearney-Cooke & Lansky 1990:281) and in early adolescence females are preoccupied with bodily changes (Rierdan & Koff cited by McGrory 1990:268). Although boys are not immune to the pressure to look good, girls and women are particularly affected by it (Cash, Winstead & Janda 1986:30; Kallen & Doughty 1984:93; Mintz & Betz 1986:185-186). (For this reason, and because this study will focus on female adolescents, the feminine personal pronoun will be used in the text).

It is thus suggested that body image is a very important part of an adolescent's life and one which is related to many other aspects of her living, including her interpersonal relationships, physical activities and self concept.

1.1.2 Body image and interpersonal relationships

Socially, as well as culturally, being good looking or attractive is often valued very highly (Balogun 1987:262; Littrell et al. 1990:78). The media promotes diets, exercise, cosmetic surgery, cosmetics and many other items to alter and 'improve' appearance, particularly intended to promote desirability for and relationships with the opposite sex. These social influences are believed to have "a strong effect [particularly] on women's perceptions of the importance of beauty characteristics in their lives" (Tan cited by Kelson et al. 1990:281).

In social relationships and particularly relationships with the opposite sex, physical appearance does play an integral role. Research indicates that physical attractiveness is
positively correlated with popularity (Jensen 1985:102). The female who is less attractive has a disadvantage in interpersonal relationships and physical attractiveness influences the ability of an individual to meet potential mates (Kallen & Doughty 1984:95). According to Berscheid, Walster & Bornstedt (1973:104) adolescents who are physically attractive do get more positive social reaction, and people who are satisfied with their bodies, i.e. those who have a positive body image, seem to relate better to other people and especially to members of the opposite sex than those who are not satisfied with their appearance.

Although from a spiritual point of view adolescents are often encouraged to focus on 'what is inside a person' rather than on looks, a "substantial majority of people ... share [this] emphasis on appearance" (Cash et al. 1986:30).

### 1.1.3 Body image and physical activities

There seems to be a positive relationship between one's body image and one's participation in physical activities although the literature suggests that it is the physical activities which influence the body image. Zion (cited by Folkins & Sime 1981:378) suggests that "changes in the body as a result of fitness training might reasonably be expected to alter one's body image" and Caruso & Gill (1992:422) report that "physical self-perceptions ... [are] enhanced by participation in an exercise program".

### 1.1.4 Body image and other aspects of life

Body image thus seems to affect interpersonal relationships and to show a correlation with participation in physical activities. The question now arises as to whether body image is also related to other areas of one's living. If it is, what are these areas and how are they affected? If body image can be found to be related to important parts of a person's life, then it can be argued that careful attention needs to be given to the educational implications of this. For instance, if a relationship can be shown to exist between body image and academic achievement, then it may be important to look into ways of improving students' body image so that they are more likely to perform better academically.
Some clues to these questions may be found in looking at the relationship between body image and the self concept, and the subsequent relationship between self concept and other areas.

1.2 Body image and self concept

'Self concept' is an inclusive term for various components of the 'self'; one of these being the body image (Gerdes & Moore 1989:78). Burns (1982:151) regards the body image as "one of the sources of self conception" and points out a close relationship between these two concepts. In early childhood it is difficult to separate the body image and the self concept as the self concept is initially a body image. This relationship is of particular importance during early childhood and again at adolescence.

... as the emphasis on the physical qualities of the individual are [then] strongly marked and at these periods physical attributes and deficiencies (both real and imagined) can have considerable effects on the development of a person's overall self concept.

(Burns 1982:151)

The attitudes towards the body become closely associated with attitudes towards the self. A considerable number of researchers have claimed that the way a person feels about her body (body image) is similar to the feelings she has towards herself generally (self image) (Balogun 1987:263; Gerdes & Moore 1989:80; Jourard & Secord cited by Burns 1979:155; Lerner & Padin cited by Rauste-von Wright 1989:72; Mintz & Betz 1986:185; Napoli et al. 1985:81; Powers & Erickson 1986:37).

Zion (Foxcroft 1981) found significant correlations between body concept and self concept scales in a study which also addressed physical qualities in body movement. She concludes that

...the security one has in one's body and its functional abilities (especially those reflected in attitude to movement and expression) is related to the security with which one faces one's self and the world.

(Zion cited by Foxcroft 1981:26)
1.3 Self concept

1.3.1 Introduction

Coopersmith & Feldman explain the term 'self concept' as follows:

The self concept consists of the beliefs, hypotheses, and assumptions that the individual has about himself. It is the person's view of himself as conceived and organized from his inner vantage. The self-concept includes the person's ideas of the kind of person he is, the characteristics that he possesses, and his most important and striking traits. The hypotheses, beliefs and assumptions about the self are organized into a self-image, that is, a picture that the individual holds of himself. This image represents the person's view of what he is like ...

(Coopersmith & Feldman, date unknown: 198)

The self concept is regarded as a strong determinant in many spheres of life. Purkey (1970:10) emphasises this fact: "Perhaps the single most important assumption of modern theories about the self is that the maintenance and enhancement of the perceived self, is the motive behind all behaviour".

1.3.2 Self concept and academic achievement

During the past few decades education has recognized that academic development cannot be considered in isolation from other aspects of human development (Burns 1982:206). It has thus become concerned about the physical, social and emotional development of the individual and much attention has been given to factors, other than intellectual ability, contributing to the academic achievement of pupils. The development of the self concept, in particular, has become a central theme in education. This has already been emphasised by Purkey (1970:15), who concluded that "research evidence clearly shows a persistent and significant relationship between the self concept and academic achievement". Burns (1982:206) similarly claims that "a positive self-concept is one of the most vital elements for academic success" and "since the self-concept is both a personal and motivational
variable its overall contribution to the variance of academic achievement should be quite high. Individuals seem to be motivated to perform "in a manner consistent with their self-esteem" (Burns 1982:218).

Combs (cited by Burns 1982:213) concentrated on underachieving students in his research on the relationship between self concept and school achievement. He found that "underachievers saw themselves as less adequate and less acceptable to others and they also saw peers and adults as less acceptable". Wattenberg & Clifford (cited by Burns 1982:216) showed that self-conception can affect performance at an early age too. They found that "measures of self-concept ... made at the beginning of kindergarten were more predictive of reading achievement ... than were measures of intelligence".

In several correlational studies using a variety of scales to measure various aspects of self concept and academic achievement, consistent findings have emerged. This relationship seems to be a valid one indeed, although causality could not be determined. It thus seems undetermined whether a positive self concept provides a student with the attitude and approach towards her work that are likely to ensure success or whether academic success nourishes positive feelings a student holds about herself.

1.3.3 Self concept and social relationships

In social relationships the self concept plays an important role (Byrne & Kelley 1981:106; Margow & Oxtoby 1987:62; Rogers cited by Van Zyl 1983:25; Van Jaarsveld 1989:6). The individual who has a positive self concept accepts herself as well as others. She realistically believes in her own potential and abilities, which gives her the confidence to cope well with everyday situations, and also enables her to relate well to other people. She does not feel threatened by her own limitations and accordingly accepts those of other people. A positive self concept thus contributes to natural and spontaneous behaviour and positive interpersonal relationships.
1.3.4 Self concept and physical activities

It has been concluded that physical exercise relates positively to mental and emotional well-being (Tucker 1987:271) and the development of a healthy self concept (Caruso & Gill 1992:416). According to Folkins & Sime (1981:381) several researchers have confirmed the assumption that fitness training improves the self concept. Zion mentions that

...changes in the body as a result of fitness training might reasonably be expected to alter one's body image, which is highly correlated with and might be expected to radiate to self-concept.

(Zion cited by Folkins & Sime 1981:380)

1.4 The problem

Body image receives a high profile in the mass media and seems to be an important part of an adolescent's life. As a school counsellor, it is of particular interest to the researcher to explore this relationship between body image and certain aspects of the adolescent's life.

It is important to be aware of the factors which influence the lives of adolescents and which determine their behaviour. If one acknowledges the role that body image plays in the life of an adolescent, it could contribute to a better understanding and greater acceptance of the individual at a stage when she very often lacks these characteristics. At the same time this knowledge could enlighten parents and educationists as they attempt to help the adolescent to understand herself better, and also to overcome difficulties regarding the body, in order for her to function at optimal capacity. Van Wyk, Erlangsen, Kruger, Gelderblom, Dostal & Vergnani (1986:287) claim that "being happy with one's appearance makes it just that much easier to concentrate on doing other things well".

It has been suggested that self concept is significantly correlated with academic achievement, interpersonal relationships and physical exercise. As body image is a component of the self concept, is body image similarly involved in academic achievement, sport participation and social areas of the life of an adolescent?
1.5 Aims of this study

In this study the researcher attempts to determine to what extent the body image of an adolescent girl relates to other areas of her life. Of particular interest are those areas which are of academic, sporting and social nature and which could be addressed in a school environment.

The study focuses on a group of adolescent schoolgirls in a rural Eastern Cape area, and attempts to determine the relationship between

* body image and academic achievement
* body image and social involvement
* body image and participation in sporting activities.

If, for example, the body image shows a correlation with social involvement, and at the same time the literature suggests that body image is positively influenced by participation in physical activities, then it could be argued that social involvement and sport participation are also closely connected. If these aspects are interrelated, educationists could look into the dynamics between these various aspects and into ways of bringing about improvement in one area in order to promote improvement in related areas. Various subject areas lend themselves to intervention of this nature like art, physical training, biology and music, to mention but a few.
CHAPTER 2
BACKGROUND LITERATURE ON BODY IMAGE

2.1 Introduction

The terms 'body image' and 'self concept' must be seen as theoretical constructs which serve to explain and understand human behaviour. These constructs form part of a larger whole, namely the personality, and cannot be interpreted as if they have a separate existence.

In the literature there is no general agreement regarding the definition of the terms 'body image' and 'self concept', and researchers have many different perspectives.

A considerable number of researchers refer to body image as "the picture that the person has of the physical appearance of his body" (Schilder cited by Adame, Radell, Johnson & Cole 1991:91; Schonfeld cited by Powers & Erickson 1986:42; Traub & Orbach cited by Powers & Erickson 1986:37) or "the evaluated picture of himself as a physical being" (Burns 1979:150). McCrea (cited by Collins & Plahn 1988:332) regards body image as "a psychological experience", and focuses on "the individual's feelings and attitudes toward the body". Kolb (cited by Marsella, Shizuru, Brennan & Kameoka 1981:361) refers to the "perceptions, attitudes, emotions, and personality reactions of the individual in relation to his own body".

Yet from another viewpoint it is regarded as reflecting the value and meaning which the individual attaches to various aspects of her physical self (Burns 1979:151; Gerdes & Moore 1989:78).
The body image is considered to be one of the five components of the self concept (Gerdes & Moore 1989:78), which Santrok (cited by Jensen 1985:78) refers to as the way "adolescents view themselves". Burns (cited by Gerdes & Moore 1989:77) elaborates on this and writes that the self concept is "a composite image of what we think we are, what we think we can achieve, what we think others think of us and what we would like to be". Purkey (1970:7) arrives at a composite definition of self concept by taking several theories into account. He states that the self is "a complex and dynamic system of beliefs which an individual holds true about himself, each belief with a corresponding value".

Additionally, the term 'self esteem', often used interchangeably with self concept, is distinguished from the self concept by Caruso & Gill (1992:416) and referred to as "the evaluative component of self-concept" and "the individual's positive feelings about himself or herself". Coopersmith (cited by Jensen 1985:78) is of the opinion that "self-esteem refers more to feelings about oneself, while the self-concept refers more to intellectual beliefs about oneself".

It has been mentioned previously that body image, or the physical self concept, is a component of the self concept and as such it can be expected that there will be some kind of relationship between these concepts.

2.2 The relationship between body image and self concept

Researchers generally agree that one is fundamentally affected by the way one views one's body, the decision one makes about it, as well as how one thinks others perceive it (Corey & Corey 1990:146). A considerable number of researchers have investigated the relationship between self concept and body image. They seem to have consistently reached the conclusion that these concepts are closely related (Balogun 1987:263; Berscheid et al. 1973:127; Fischer 1986:637; Gerdes & Moore 1989:80; Jourard & Secord cited by Burns 1979:155; Lerner & Padin cited by Rauste-von Wright 1989:72; Mintz & Betz 1986:185; Napoli et al. 1985:81; Powers & Erickson 1986:37).

There are, however, varying viewpoints regarding the nature of the relationship between
body attitudes and overall self-attitudes. In Fischer's view the self concept is "wrapped around the piece of space labeled as 'my body'" (Fischer 1986:79). A conclusion made by many researchers is that the feelings one has towards one's body are similar to those one has towards oneself generally. Berscheid et al. (1973:127) described this relationship as follows: "A positive body-image may increase a person's self-esteem, or basic self-esteem may lead a person to feel good about his or her body." Speer (cited by Fischer 1986:79) "observed a significant positive correlation in adolescents between self-acceptance and favorableness of feelings toward their own body".

Burns (1979:152) remarked that

... a person's height, weight, complexion, eyesight, body proportions so become closely associated with his attitudes to himself and feelings of personal adequacy and acceptability [and that these] physical attributes and deficiencies (both real and imagined) can have considerable effects on the development of a person's overall self concept.

(Burns 1979:152)

Napoli et al. (1985:81) claim that the way a person feels about the condition of her body has an effect on the feelings about herself. Conversely, a person's self-worth is reflected in the value she places on her physical well-being. Powers & Erickson (1986:48) accordingly suggest that, in order to enhance the self image as part of a therapeutic intervention, the modification of the body image could be an essential component.

Although it seems appropriate to conclude that "an honest examination of the choices you are making about your body and your overall wellness can reveal a great deal concerning your feelings about your life" (Corey & Corey 1990:142), people are not affected in the same way or to the same degree by their body image:

One person's self-definition may relate first and foremost to his appearance, physical strength and athletic performance, while another person may place the emphasis on his professional role and academic achievements.

(Burns 1979:152)
Nevertheless, body image is generally considered to be at the centre of the feelings towards oneself generally and thus plays a meaningful role in the life of most individuals. How these attitudes and feelings come about and how they are characterized should therefore be of great significance to those who deal with human development and human relationships.

2.3 The formation and nature of body image

The feelings concerning the self and the body are very deep-rooted and have their origins in earliest childhood. The small child becomes aware of herself as a human being through her bodily sensations:

Some sensations come from within [her] own body, e.g. hunger; others from the periphery of the body, e.g. contact with mother’s body ... yet other sensations come via the ears, eyes, nose and tongue.

(Burns 1979:148)

All these sensations play an important role in creating one of the first components of the self concept, the body image, which is also "the core of the self concept in the first few years of life" (Burns 1979:148-151) and one of various sources of self conception.

The formation of the self concept, including the body image, is especially important during childhood and adolescence. Fischer stresses that a stabilized organization of the body image provides, at an elementary level,

... a map of a space equated with 'I'. The body image then, offers a reliable guide to ... a potentially threatening terrain. But, in addition, it constitutes a persistent 'frame' that enhances continuity from situation to situation.

(Fischer 1986:639)

Burns emphasises the key role which body image plays in our lives in the following:
Like all other elements of self conception, the body image is subjective, but no other element is more open to private and public evaluation. The body is the most visible and sensed part of a person.

(Burns 1979:152)

Although the body image seems to be a fundamental and stabilizing factor in the development of the self, theorists and researchers agree that body image is not congruent with an individual's actual body dimensions. Although human beings have access to accurate mirrors and should therefore have body images very close to reality, this is not the case. "There is a marked selectivity in our perception of our own bodies; the individual does not merely register 'what is there'" (Moss 1983:75). The individual selects various aspects, emphasises, omits, and in the end the body image is built up "around those parts of the body which have a special relation to the world of things and of other people" (Moss 1983:76-77). During those stages in which social relationships play an important role in the life of the individual (during adolescence for example), those parts of the body which are regarded as attractive, such as a woman's figure, hair and facial features, often have "a special prominence in ... body image" (Moss 1983:77). Children's drawings, likewise, illustrate this process in which the focus is on "that part of the body which, for them, is most important in their experience".

It thus seems that, particularly during certain periods in life, there is a strong emphasis on the physical qualities of the individual and that body image becomes more prominent during these particular phases. In addition, body image in itself seems to undergo distinctive changes and is modified from time to time.

2.4 The modification of body image

Throughout the lifespan of the individual, several physical changes take place, accompanied by a modification of the body image. Gerdes & Moore regard these changes in the body image, self concept, identity and roles as a "constant modification throughout life" (Gerdes & Moore 1989:77-78). The body image thus is in a continuous process of
revision, "being shaped according to the current situation of the individual" (Head & Schilder cited by Moss 1983:80).

Gerdes & Moore (1989:77) point out that "every transition, crisis and role change is, however, inevitably associated with change in one's self-perception". If a person thus experiences a major physical change after having been involved in an accident, for example, it will inevitably lead to a change in body image and consequently in self concept (Gerdes & Moore 1989:78).

Fischer (1986:640) acknowledges the modification of the body image as a lifelong process which has to be repeated constantly. He regards this process as an "affirmation of the uniqueness of one's body". He furthermore suggests that at those points or stages when one's body changes significantly (e.g. adolescence or subsequent to body injury), there is "renewed motivation to inventory and articulate just what is somatically special about oneself".

The individual not only appreciates being unique and special, but also has an ideal image, symbolizing what she would like to look like.

2.5 The ideal body image

Additional to the relationship between the individual's body image and her development and behaviour, a number of researchers claim the existence of an ideal body image, i.e. what the individual would like to look like (Burns 1979:159; Rauste-von Wright 1989:71; Schonfield cited by Collins & Plahn 1988:318).

It is suggested that if the subjective body image of the individual deviates from the ideal body image it can be "quite disruptive in personality" (Burns 1979:151) and it may result in feelings of "indifference and inferiority" (Schonfeld cited by Collins & Plahn 1988:318). Conversely, the closer the subjective body image is to the ideal held by the individual, the greater the possibility of that individual of having a high self-esteem.
The characteristics of these ideal images are mainly determined by the norms of society, culture and stereotypes. As they are constantly influenced by fashion, group pressure and beliefs, they are very flexible and change from time to time. Additionally, the focus is very seldom placed on the overall physical appearance; much attention is paid to certain features and little to others. "One may thus expect young people to evaluate their physical appearance and attractiveness with reference to a fairly limited set of bodily features, partly different for the two sexes" (Rauste-von Wright 1989:72-73).

These popularized ideal images are mainly imitated by young people who are in the process of establishing their own unique identities. Simultaneously they have a strong need to belong and conform to the group and one may expect young people in particular, to feel the pressure of these idealized images even stronger.

2.6 The effects of body image on personal development

Research points out that the development of the body image, which starts at an early age, is fundamental in the life of the individual and seems to set the groundwork for later development (Brooks-Gunn, Rock & Warren 1989:51; Powers & Erickson 1986:37). A child who views her body positively is most likely to have a positive attitude towards herself and will regard herself positively later in life (Bersheid et al. 1973:122-127). This viewpoint is also shared by other researchers. Lerner concludes that

...an adolescent's bodily characteristics evoke differential reactions in her socializing others and that these reactions feed back to the adolescent influencing her further development."

(Lerner cited by Rauste-von Wright 1989:72)

In this regard it is of interest to consider a sensitive issue such as nicknames which are related to physical characteristics, and the possible influence these may have on the development of the individual. It is common knowledge that children can be "painfully honest and painfully cruel", and use highly descriptive and crude nicknames to refer to very sensitive aspects of the physical attributes or to personality traits of the individual. Although they may initially be applied innocently, the devastating effects such nicknames may have
are evident (Berscheid et al. 1973:122). Especially when applied by significant others, they may be perceived as describing the whole person, thus affecting the general self-esteem.

Even from a very young age the individual is most receptive to ideas about the self:

The primary school-age child is extremely receptive to both peer and adult input concerning his person and performance, more ready to believe and incorporate into his personality and behaviour those things he hears about himself.

(Burns 1979:154)

Once negative feelings about the self exist, it may accompany that person throughout life. This can interfere with and hinder the personal growth of the individual. In order to address this problem a restructuring of ideas about the self will inevitably be required (Corey & Corey 1990:146). Conversely, the positive input a person gets as a child could contribute positively to her personal growth and help her cope with difficult situations later in life.

2.7 Stereotypes

Burns (1979:152) claims that there is sufficient evidence to believe that people consistently respond to stereotypes in a certain way. The endomorph seems to be the least desirable body type (Collins & Plahn 1988:330) and is doomed as bad, lazy, mean, dirty and stupid. People almost always respond to such a stereotype in a negative way. Conversely, in our minds we associate looking good with other traits such as being good, intelligent, successful, competent and pleasant (Napoli et al. 1985:106).

Stereotyping of body types begins at an early age. These socially defined stereotypes also have a strong influence on how a person views her own appearance. A person who has an endomorphic body build will almost inevitably view herself more negatively than other body builds (Fischer 1986:68; Rauste-von Wright 1989:72). In contrast "it is the feedback from others plus the knowledge that one’s body build is strongly culturally approved that provides the positive gain" (Burns 1979:154).
Against this background it is evident that body image is a complex matter which is particularly important during various stages of life and which is focused on by various individuals or groups. Adolescence is such a phase.

2.8 Body image and adolescence

The fundamental role which both physical appearance and the peer group play in the life of the adolescent, is captured in the following quotation by Rogers:

...adolescents cannot forget their bodies; the body is the external presentation of one's self to the world, and other persons continually remind one of it. Therefore, adolescents seek endlessly to modify the physical image of themselves to conform to and support the picture they wish to present to others.

(Rogers cited by Jensen 1985:82)

Jensen remarks that in high school those virtues exemplified in face and figure "often prove to be much more influential over the lesser requirements of intelligence, character and personality" (Jensen 1985:103). He furthermore suggests that

... possessing attractiveness is not a sufficient condition to ensure one's popularity ... but meeting society's pattern of physical beauty has been found to be a powerful determinant.

(Jensen 1985:104)

During the adolescent years young people are prone to many biological, cognitive, social and emotional changes (Brooks-Gunn et al. 1989:51). It is a period of physical and sexual maturation and the changes in body size and appearance are very noticeable.

Many boys and girls are very sensitive to all these changes and their physical appearance seems to be more important to them than anything else (Gerhardt 1989:6). Remarks are often made about the hours adolescents spend in the bathroom or in front of the mirror grooming themselves. They experiment with hairstyles, cosmetics and fashions and are very critical about clothing. They are also hypercritical about their parents and their
appearence.

What counts most for many adolescents, is the opinion of others and the acceptance by their peer group. Jensen suggests that—

... during the junior high school years the powerful effect of the peer group is felt most strongly and in some cases has a tragic effect on youth, especially on those with weak identities.

(Jensen 1985:99)

Coleman found that "popularity and peer acceptance were the driving motivational forces within the high school culture" (Coleman cited by Jensen 1985:46-47). At a time when they have to come to terms with changing bodily features, often totally undesirable, they focus heavily on their physical appearance as one of the main determinants of social acceptance by the peer group. Conflicting feelings may thus be experienced. All these reflect a need for reassurance and some uncertainty as the personality is unfolding and the adult world is gradually entered (Gerhardt 1989:6).

Physical appearance is not only strongly emphasised during the adolescent years (Eme cited by Jensen 1985:21), but the physical changes which inevitably take place, also necessitate the "restructuring of the body image" (Collins & Plahn 1988:318). Laufer & Laufer (cited by Amann-Gainotti & Antenore 1990:388) consider the restructuring of the body image "an essential maturational task of adolescence". The individual should thus successfully assimilate these changes and consolidate the self in order to ensure personal growth.

The adolescent does not only have to constantly modify the existing body image, but consequently also her self concept. As previously indicated, concerns about the body are closely related to concerns about the self. It is thus most important for the adolescent to have positive feedback about her appearance, in order to add to a better general self-esteem (Gerhardt 1989:6).

Research shows that there are good theoretical reasons to expect that adolescence will be a time characterized by changes in bodily feelings and attitudes due to the radical changes
which the adolescent experiences (Fischer 1986:93). In spite of this, however, there has been "considerable dispute as to whether adolescents do experience a remarkable amount of change or turbulence" (Fischer 1986:94). One could argue that change is characteristic of all phases of life. The body is constantly in the process of altering and some of these shifts in the body (e.g. those that occur between certain ages early in the development sequence) could be experienced quite as radically as those occurring at adolescence.

Fischer (1986:106), however, concludes that although these changes may not be as dramatic as they are claimed to be, signs of increased feelings of "body vulnerability do arise at this point". The adolescent is indeed experiencing a particular sensitivity about her body, although there are numerous individual differences, one of them being the differences between male and female experience.

2.9 Sex differences

Traditionally physical appearance had been looked upon as an issue of female interest. There had been a "special cultural emphasis on judging women strictly in terms of their physical appearance and their conformance to standards of beauty and fashion" (Fischer 1986:71).

In recent years, however, males have also become prone to the cultural pressures concerning their looks. "There seems to be culturally determined standards for both the ideal male and female bodies which are reflected in books, mass media, and advertisements" (Rauste-von Wright 1989:81). The emphasis, though, may be different for males and females so that consequently, they have contrasting attitudes about their bodies.

Males, generally, want to be large and females want to be relatively small (Burns 1979:151; Caskey & Felker cited by Collins & Plahn 1988:330; Fischer 1986:181). Fischer (1986:105) claims that these differences suggest that men seem to focus on effectiveness (being handsome and having a muscular chest) and women on attractiveness (being pretty and slim). Kallen & Doughty (1984:113) point out that socially it would appear that the source of competence for men is associated with "what they can do, while for women it is still
highly tied to how they appear."

Although physical appearance and attractiveness seem to be important for both males and females, females seem to be more concerned about it (Collins & Plahn 1988:331; Fischer 1986:106) and also tend to be less satisfied with their bodies than men (Berscheid et al. 1973:122; Mintz & Betz 1986:185; Paxton et al. 1991:375; Rauste-von Wright 1989:81). This may follow as

... physical attractiveness is much more important socially for females than it is for males, and it seems probable that socially determined standards defining attractive and unattractive facial and bodily conformities are both clearer and more narrowly defined for females than for males.

(Kallen & Doughty 1984:93)

Research findings also point out differences of this nature between boys and girls in their teenage years.

During the teenage years, both boys and girls are subjected to changes regarding their physical appearance, as well as to the accompanying effects these may bring about. Girls, however, seem to be particularly affected by the pressure to look good (Cash et al. 1986:30; Freedman cited by Kelson et al. 1990:281; Kallen & Doughty 1984:93; Katchdourian, Lerner & Karabenick cited by Rauste-von Wright 1989:72; Mintz & Betz 1986:185-186). They are more critical about and less satisfied with their bodily appearance than their male counterparts (Fischer 1986:106; Littrell et al. 1990:78; Paxton et al. 1991:375-376) and occasionally they are even "preoccupied with bodily changes" (Rierdan & Koff cited by McGrory 1990:268).

These differences between the sexes have been well explained by Fischer (1986). The female child begins earlier than the male to voice dissatisfaction with her bodily appearance and continues to do so right into the adult years. This may reflect the special importance our culture attaches to the outward beauty of women. One may conclude that the female has a clearer concept than the male of the role her body will play in later life and more nearly equates self with body.
Similar to the research findings concerning adults, Cohn, Adler, Irwin, Millstein, Kegeles & Stone (1987:277) claim that boys and girls are equally dissatisfied with their bodies, although the direction of dissatisfaction is different for the sexes. Particularly during adolescence, girls want to be thinner and boys want to be bigger. Cohn et al. (1987:279) further suggests that self-perceptions may be relatively stable over time, whereas "the definition of ideal becomes thinner, creating increasing pressure for thinness in late adolescence and early adulthood".

However, the question arises as to whether the emphasis on being thin still remains for women.

For a couple of decades there had been a great emphasis on being "slim, ... with well proportioned distribution of body fat" (Kallen & Doughty 1984:93). Research also proves that being thin has been associated with being attractive and that this remains a female ideal (Cohn et al. 1987:277; Collins & Plahn 1988:330; Kallen & Doughty 1984:111; Paxton et al. 1991:375). In recent years, however, there has been a shift in focus towards health and fitness which is evident in the popularity of health clubs and physical activities such as aerobics, jogging and cycling.

Mintz & Betz (1986:187) remark that in societies where the emphasis is on female sexual attractiveness, being satisfied with the body "is more important for the overall self-esteem and well-being of a woman". In societies, however, which are inclined to establish equal rights for men and women, as well as in those where women are "liberated from traditional sex roles and expectations" (Mintz & Betz 1986:187) body image may be less crucial for women in developing feelings of self-respect and well-being.

These sex differences have been regarded most important by Fischer (1988:105) who claims that those writers who conclude that sex differences are minimal, "seem to be unaware of the multitude of differences revealed by body image research".

The research on body image has dealt with a number of issues, among others that of weight.


2.10 Weight

Considering the coverage which body weight gets in the media, one should not be surprised that concerns about weight are "endemic in our society, even among normal-weight adolescents and adults" (Garnel & Garfinkel cited by Brooks-Gunn et al. 1989:57). A sensitivity regarding weight has been cultivated by the media and by the expert opinion of health professionals who suggest that "all degrees of overweight are disvalued" (Kallen & Doughty 1984:94). Being fat seems to be socially undesirable (Balogun 1987: 263) and it is considered that "the female who is even a few pounds overweight is at a significant disadvantage in the interpersonal relationship market" (Allon cited by Kallen & Doughty 1984:93).

Research findings further suggest that satisfaction with one's weight results in being satisfied with one's body (Balogun 1987:263; Berscheid et al. 1973:121) and that fat people often see themselves as "less physically attractive" (Kallen & Doughty 1984:112). In a study which Balogun (1987:26) conducted there was an inverse relationship between body image (indicated by the Physical Self scores of the Tennessee Self-Concept Scale) and body fat measurements.

Few people, especially women, appear to be satisfied with their weight and physical appearance in general. Most seem to strive for the 'perfect body' and 'ideal weight', but very few people achieve this goal (Corey & Corey 1990:146). According to Kallen & Doughty (1984:96) "... the perception of appropriate weight is, in part, a function of the constant comparison of the self with others in the immediate social environment".

This, however, does not necessarily apply to all people. There are those for whom "the face makes the difference" (Berscheid et al. 1973:122) and others, who perceive themselves as very much overweight but do not view themselves negatively (Powers & Erickson 1986:49).

The concerns of adolescents over their bodies/appearance should thus be assessed in order to counteract the negative consequences of their distorted perceptions and to put these into the correct perspective. It should be stressed that they should not lose sight of
the many positive attributes they have as total human beings; things which are not measured in terms of kilograms or centimeters (Gerhardt 1989:8).

The issue of weight is usually related to excessive slimming endeavours and eating disorders.

2.11 Slimming and eating disorders

For a couple of decades western societies focused heavily on being slim and on weight reducing diets:

As early as 1980, researchers were suggesting that during the previous two decades there had been a gradual evolution in the culturally based ideal body shape for women toward a thinner body ideal, which was associated with increasing pressures on women to diet.

(Garner, Garfinkel, Schwartz & Thompson cited by Crowther 1992:643)

Berscheid et al. (cited by Balogun 1987:262) remarked that the "American society adores females with slim and well-toned bodies" which were also presented by models in fashion and design. Clothes were designed for the thin, childlike figure which consequently lead to an obsession "with being thin, beautiful, young, sexy" and people went to "extraordinary lengths to approach those ideals" (Berscheid et al. 1973:119). Dieting clubs were established and dieting aids were marketed in abundance.

These pressures of dieting and thinness affected many women who became obsessed with their weight. They subjected themselves to extreme dieting and starvation, ignoring the warning signs of their neglected health. It became a cult of which a considerable number of supporters fell prey to eating disorders such as anorexia nervosa and bulimia.

Although thinness is no longer being emphasised as much as previously, it is still regarded a "contributing factor to the higher incidence of eating disorders in women" (Brooks-Gunn et al. 1989:51; Garner et al. cited by Cohn et al. 1987:276; Littrell et al. 1990:78).
2.12 Body image and its social implications

It was pointed out earlier that physical appearance plays a significant role in the life of the individual and is of particular interest in the social life of the adolescent. Fischer (1986:150) claims that "among the many different roles that can be assigned to the body that of social mediator or instrument for winning approbation is often predominant". Burns (1979:158) refers to physical appearance as "a very potent agent for attracting particular social responses".

In initial social interactions the body is the first and central means by which the individual expresses to other people who she is (Powers & Erikson 1986:38). Even before a word has been spoken, a person's physical appearance already makes an impression on other people. It thus seems that "much feedback is given on the basis of purely physical appearance..." (Burns 1979:154) and that people often judge one another on the basis of physical appearance (Napoli et al. 1985:106).

From an early age children realise that for many people physical appearance plays an important role and that "the attractiveness of one's body [could] powerfully affect others' responses" (Fischer 1986:67). Adults and children believe that attractive children engage in more socially desirable behaviours than do unattractive children and are more often selected as potential friends. Consequently children incorporate these standards for physical appearance into their own lives and are often radically affected by them. Dion (cited by Fischer 1986:68) found that children in his sample preferred to have attractive friends and that the latter in turn were "more likely to behave in a pro-social fashion than would the 'unattractive' ".

In the social life of the adolescent the focus on looks seems to intensify and the norms of the peer group are predominant. Several studies, as reported by Jensen (1985:104) indicate that physical attractiveness is positively related to positive peer relations. Although beauty and physical attractiveness do not necessarily ensure acceptance and social competence, physical appearance plays a key role in the social life of most adolescents (Lerner, Karabenicj & Roach cited by Littrell et al. 1990:77). They spend much time and
energy on their appearance, comparing themselves with the physical norms determined by
the peer group. Any deviation from these group standards may result in feelings of
indifference and inferiority and may have numerous social implications. A woman, for
example, who feels unattractive may take even less care of her body because she feels so
unhappy with it. The message that she sends out to other people is that she does not care
much about herself and/or that she is not worth caring about.

Fischer & Cleveland (cited by Collins & Plahn 1988:318) note that physical appearance
does not take on social importance only, but also sexual importance. Among adolescents
an attractive physical appearance is considered essential for popularity with the opposite
sex (Freedman cited by Littrell et al. 1990) and has been associated with general peer
acceptance and leadership potential in high school (Creekmore cited by Littrell et al. 1990).

This emphasises that the physical self-perceptions of people "are likely to have a powerful
effect on other areas [of their lives] (Corey & Corey 1990:146). Terms which are used to
describe physical appearance, easily come to define the whole person. In this and other
ways the body image in considerable measure determines the general self-esteem level
(Burns, 1979).

Physical appearance also plays a role in the marriage endeavour. Kallen & Doughty
(1984:94-95) point out that

... physical beauty is a marketable commodity and first impression
catalyst in the marriage-courtship market [and that] physical
attractiveness influences the ability of an individual to meet potential
mates particularly under conditions in which there is little opportunity
to get to know other aspects of the individual.

(Kallen & Doughty 1984:94-95)

However, the social life of the adolescent does not rest exclusively on physical appearance
and satisfaction with the body, nor is the body "an irrelevant shell in which the soul
happens to live" (Berscheid et al. 1973:131). And when the individual who is less physically
attractive has the opportunity to know "potential courtship partners for a longer period of
time, the negative influence of physical appearance should diminish" (Kallen & Doughty 1984:95).

2.13 Body image and academic achievement

Research lends considerable support to the theoretical view that a positive self concept and a high self-esteem are likely to result in higher academic achievement, and more negative beliefs and feelings are likely to be associated with underachievement or failure (Brookover cited by Burns 1982:209; Purkey 1970:15). Purkey (1970:15) points out "a persistent and significant relationship between the self concept and academic achievement". Brookover (cited by Burns 1982:209) concludes that this relationship is substantial even when measured intellectual ability is controlled.

The importance of having a positive self concept is emphasised by Jersild (cited by Purkey 1970:11) who found that the child behaves in a way that is congruent with her self concept (the picture she has of herself). She will actively try to maintain this picture of herself even though it is a 'false and unhealthy' one. This is also a viewpoint held by Coopersmith & Feldman:

Since ability is only one of the factors that enter into academic performance, the attitudes, beliefs, and feelings associated with the self concept and self-esteem have an important influence on how closely a child approaches his potential.

(Coopersmith & Feldman, date unknown: 194)

The relationship between self concept and academic achievement is regarded by Purkey as a "two-way street", implying a "continuous interaction between the self and academic achievement", each directly influencing the other (Purkey 1970:23).

As the physical self (body image) is a core element of the self concept, it is suggested that body image could similarly show a relationship with academic achievement. In this regard Rauste-von Wright (1989:72) claims that physical attractiveness is "moderately associated with ... good school grades".
2.14 Body image and sport participation (physical activity)

In recent years physical fitness and a healthy lifestyle have been promoted by professionals in the medical and health services. Amongst the benefits are direct physical implications such as fitness and the release of tension, as well as "body experiences that can energize apparently unrelated motivational systems" (Fischer 1988:143). The psychological benefits of exercise include decreased anxiety, increased self-confidence, improved mood, an increased self-esteem and an improved self concept (Berger & Owen 1988:149; Caruso & Gill 1992:416; Tucker 1987:267).

Among other researchers who report on the relationship between body image and physical activity is Zion, who claims that

... changes as a result of fitness training might reasonably be expected to alter one's body image, which is highly correlated with and might be expected to radiate to self-concept.

(Zion cited by Folkins & Sime 1981:378)

Foxcroft (1981:26) agrees that physical activity is positively related to the body image of an individual. Caruso & Gill (1992:422) suggest that "physical self-perceptions and fitness are enhanced by participation in an exercise program" and Balogun remarks that

...considerable weight-loss (i.e. decreased body fat) and increased body flexibility may enhance body-image and global self-esteem. These goals can be achieved through prudent diet, aerobic and calisthenic exercise programs.

(Balogun 1987:263)

Adame et al. (1991:94) claim in their study of dancers and non-dancers that dancers who are more physically fit tend to have more positive body images, as determined by the Body Self Relations Questionnaire. Sonstroem (cited by Melnick & Mookerjee 1991:1335) has reviewed a number of studies and concludes that their results confirm the salutary effects of a physical training programme on self-esteem.
It has been emphasised in several research studies that the kind of physical activity in which a person engages, as well as the duration of participation, will largely determine the effects on body image and self concept. Melnick & Mookerjee (1991:1342) studied the effects of advanced weight training on body-cathexis and self-esteem and found that a weight training course in particular does have positive effects on a subject's physical self. Regarding the duration of physical activity Fischer (1986:142) claims that "... simply engaging in a limited period of vigorous body activity may not be sufficient to increase body esteem".

Research findings furthermore suggest marked differences between males and females regarding physical fitness and sport participation. In their study Paxton et al. (1991:377) find a "large discrepancy in reported hours of exercise" per week between girls and boys, which supports the finding of Stewart & Corbin (1989:64) that "...females are considerably less active than males...".

In the literature physical exercise is regarded as significant in the enhancement of the body image. Whether this also applies to adolescents and to the physical activities in which they engage such as school sport, is not yet extensively investigated. This, as well as the role which body image plays in sport participation, are matters of particular interest to the researcher.
3.1 General Approach

The aim of this research was to determine the relationship between the body image of adolescent girls and their academic achievement, social involvement and sport participation respectively. Although this could be done in a qualitative manner which phenomenologists and ethnographers would claim is more appropriate in trying to understand human experience (Ely, 1991; Giorgi, 1985), this is a complex and complicated approach demanding experience and expertise beyond that of this novice researcher. It was decided to adopt the well-used traditional quantitative method of measuring the relationships by means of statistical correlations. In this positivistic approach, the researcher observes, measures, and attempts to establish relationships between variables. No apology probably needs to be made for this method for "much research in the field of education, especially at classroom and school level, is conducted in this way" (Cohen & Manion 1994:20).

In this study a survey, the "most commonly used descriptive method in educational research" (Cohen & Manion 1994:83), was undertaken.

Surveys gather data at a particular point in time with the intention of describing the nature of existing conditions, or identifying standards against which existing conditions can be compared, or determining the relationships that exist between specific events.

(Cohen & Manion 1994:83)

Cohen & Manion (1994:85) identify three prerequisites to the design of any survey, namely
the specification of the exact purpose of the enquiry, the population on which it is to focus and the resources that are available.

As has already been mentioned, the purpose of this study was to determine the relationship between the body image of a group of high school girls and their academic achievement, social involvement and sport participation respectively. The population to which the enquiry was addressed consisted of adolescent girls, and a sample was readily identifiable and accessible. Finally, appropriate resources were available to the researcher. The financial cost in designing, planning and implementing this survey was minimal, the researcher had easy access to the sample, and statistical and computer help was on hand at the university.

The collection of information for the purpose of this study involved

* questionnaires to determine the body image, social involvement and sport participation of each participant;
* school records from which biographic data, as well as academic results and intelligence scores could be obtained.

### 3.2 Sample

For the purpose of this study high school pupils were used as subjects because the adolescent years are considered "a sample case in which links between biology, behavior, and context may be profitably studied" (Brooks-Gunn et al. 1989:51). It is furthermore suggested that:

The study of adolescence is important because the way young people cope with the changes occurring at this stage of life lays the groundwork for the emergence and maintenance of behaviors related to physical and mental health.

(Brooks-Gunn et al. 1989:51)

Amongst adolescents physical appearance is one of the most important components of their emerging identity (Jensen 1985:21). According to Coleman (cited by Jensen 1985:21) they
focus more on bodily appearance than on any other aspect relating to the self. The bodily appearance, also referred to as body image, is consequently related to other areas of the life of an adolescent.

The focus in this study was placed on girls. Although physical appearance and attractiveness seem to be important for both males and females, males seem to be less concerned about it (Collins & Plahn 1988:331). For women body image not only remains slightly more important throughout the life cycle (Bersheid et al. 1973:122) but women also tend to be less satisfied with their bodies than men (Berscheid et al. 1973:122; Mintz & Betz 1986:185).

Female sexual attractiveness especially is rated very highly by society, and pride in one's body is very important for the overall self-esteem and well-being of a woman. This manifests itself in her behaviour too (Mintz & Betz 1986:187).

The two schools chosen are a convenient sample in that they are accessible and familiar to the researcher, who is at present a staff member of one of the schools concerned and an ex-staff member of the other. Geographically they are situated within 40 kilometers of each other. Personal access to the sample was important in order to gather data by means of personally administered questionnaires. Biographic data such as dates of birth and language groups, as well as academic results and intelligence scores of participants, could easily be obtained by the researcher from school records.

These schools were also chosen on account of several similarities. Both are secondary, Model C schools hosting boys and girls from various cultural backgrounds. Both schools accommodate pupils from the immediate area as well as from the larger Eastern Cape region, ranging from East London in the east down to Port Elizabeth in the south and Graaff-Reinet in the west. In Standard 6 and Standard 7 pupils are mostly instructed in either Afrikaans or English (parallel-medium). From Standard 8 to Standard 10 all language groups are combined and both Afrikaans and English are used for instruction (double medium). Both schools have boarding facilities, while local pupils attend the schools as day scholars.
Academically both schools offer a general course of study as well as ‘directed’ agricultural and technical courses.

The experimental group consisted of 180 secondary school girls drawn from two rural, Eastern Cape schools. All the girls from Standard 6 to Standard 10 were included, ranging in age from 12 to 19 years (the mean age was 15.35 years). Pupils of various language groups were included. Academically they are instructed in English and/or Afrikaans, and for this reason the survey was conducted in these two languages.

The details of the sample are found in Table 3.1 (below) and Table 3.2 (overleaf).

Table 3.1 Sample according to standard and language of instruction

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<th>Standard</th>
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<td>18</td>
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</tr>
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<tr>
<td>Std 8</td>
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<td>13</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Std 10</td>
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</tr>
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<td>61</td>
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</tr>
</tbody>
</table>
Table 3.2 Sample according to age

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</table>

3.3 Research instruments

In this study concentration was focused on four aspects: the body image of adolescent girls, their academic achievements, their social life and their sport participation. Each of these will be discussed with reference to the research instrument used.

3.3.1 Body Image

The Physical Self Subscale of the Tennessee Self Concept Scale (Fitts 1964) was used as a resource base in drawing up an instrument to measure body image. The final adaptation was also translated into Afrikaans (Appendices A and B).

This Physical self scale deals with the individual's view of her body, her state of health, her physical appearance, skills and sexuality. A high score indicates greater satisfaction and confidence in the body parts and overall physical appearance.
The Physical self scale consists of positive and negative statements. The subject has to respond to each of these statements by choosing from the following options:

1. Completely false
2. Mostly false
3. Partly false and partly true
4. Mostly true
5. Completely true

Each response is scored separately and a total score is calculated (see Chapter 3.5).

3.3.2 Academic achievement

In order to obtain a score for the academic achievement of participants, the average percentage obtained in each of the three most recent examinations was determined for each individual. These scores were obtained from school records. In order to account for differences in academic achievement caused by differences in intellectual ability the intelligence quotient (IQ) was taken into account as a co-variate in the analysis of variance. This means that a participant who has a low IQ score and who obtains low marks would get a score for academic achievement similar to that of a participant who has a high IQ and who gains correspondingly high marks academically.

The IQ scores were the results from standardized tests (the New South African Group Test and the General Scholastic Aptitude Test) administered by the Educational Support Services of the Cape Education Department, and were obtained from school records. The total score on either of the above-mentioned group tests was used without taking into account the verbal and non-verbal scores separately. In cases where more than one test result was indicated, the highest score was used.

3.3.3 Social life and sport participation

A questionnaire was designed by the researcher to assess the pupils' social life and sport
participation (Appendices C and D). As it promised to be difficult to measure such phenomena in any 'objective' sense, the questionnaire continued in the spirit of the body image research instrument to rely on the pupils' perceptions of their experiences. In order to provide quantifiable data, pupils were presented with a 5-point Likert scale and had to choose one of the responses. Some questions allowed a verbal elaboration.

A questionnaire was considered an appropriate instrument in that it is well suited to large group surveys (Cohen & Manion 1994:83; Anastasi 1968:438), and this particular form allowed for statistical data to emerge.

In designing the questionnaire, those qualities of an 'ideal' questionnaire which Davidson specifies, were kept in mind:

Its design must minimize potential errors from respondents ... and coders. And since people's participation in surveys is voluntary, a questionnaire has to help in engaging their interest, encouraging their co-operation, and eliciting answers as close as possible to the truth.

(Davidson cited by Cohen & Manion 1994:92)

The first ten questions focused on the pupils' social life. These questions dealt with relationships with people of the same as well as of the opposite sex, and with social activities which were school related as well as those outside the school.

The remaining eight questions dealt with pupils' sport participation. The questions were designed in such a way that, in the researcher's opinion, they would yield the most useful information about how high school pupils perceived their sport participation.

The questionnaire thus consisted of 18 questions of such a format that the participant had to choose one of five options, in most cases ranging from one extreme ('always') to the other ('never'), or from a positive to a negative answer. These answers were then scored on a scale from one for a negative answer to five for a positive answer. The total score of an individual for each of these sections was used as an indication of her participation in and attitude towards social and sporting activities respectively.
The questions in the English questionnaire are as follows:

**Question 1:** Choose from the list below that statement which best describes your social life:

a. always social  
b. often social  
c. sometimes social  
d. seldom social  
e. never social

This question requires a general impression by the participant regarding her social life. It intends to draw the focus to a specific area, and then to proceed with questions confirming this initial perception.

**Question 2:** Do you make friends easily?

a. always  
b. often  
c. sometimes  
d. seldom  
e. never

This question looks at the degree to which the girl is capable of entering into social relationships. It not only refers to having the qualities to actively reach out and make friends, but at the same time indicates whether other people can relate to her, i.e. whether she can be a friend. It is assumed that the person who is regarded as 'social', will have the ability to make friends fairly easily.

**Question 3:** How do you normally spend break times at school?

a. amongst a whole group of pupils  
b. with a number of friends  
c. with my best friend  
d. on my own, because I prefer to  
e. on my own, because I have no friends
During official school hours most time is spent in the classroom, leaving breaks as the only opportunity for pupils to mix socially and informally. A girl who chooses to be amongst many pupils is probably a person with adequate social skills.

Question 4: **How often do you attend school socials (dances /'sɔkkiəs'):**

a. always  

b. often  

c. sometimes  

d. seldom  

e. never  

At these rural schools there is limited opportunity for social occasions and attendance at dances is regarded as a useful indicator of the social life of pupils.

Question 5: **Tick the statement which describes you best:**

a. I am happiest when I am in a group  

b. I prefer to be in a group  

c. I like groups and being on my own  

d. I prefer being on my own  

e. I am happiest when I am on my own  

The above-mentioned statements are attempts to determine the pupil's need to be with other people, which in turn can be regarded as being an indication of that pupil's social life. Although responses (c), (d) and (e) are scored lower than responses (a) and (b), they are not regarded negatively in general. With regard to social involvement, however, they are considered to indicate less social participation than (a) and (b).

Question 6: **How often do you go up to strangers and start a conversation?**

a. always  

b. often  

c. sometimes  

d. seldom  

e. never
This question explores a specific instance as a general indicator of social confidence and extraversion in the life of the pupil.

**Question 7:** *When you are invited to a party, do you normally:*

- a. go with a group of friends
- b. go with a friend/your best friend
- c. go on your own
- d. stay at home, because you don't like parties
- e. stay at home, because you feel "left out"?

Parties are considered one of the few but important components of the social life of pupils in these areas. Once again there are factors other than being social which could determine a pupil's participation in this kind of activity, such as not being granted permission or it being against one's moral principles.

**Question 8:** *Do you voluntarily take part in a school activity such as a concert, play or 'rag'?*

- a. always
- b. often
- c. sometimes
- d. seldom
- e. never

In small schools with limited numbers, pupils usually participate in almost all activities offered by the school. Not only those pupils with appropriate qualities are selected for certain activities (e.g. the performing actor for a play), but general participation is encouraged. It very often proves to be those pupils who have adjusted well socially and relate well to other people who take part voluntarily in school activities such as 'rags' and concerts.

**Question 9:** *How often do you have close relationships with boys?*

- a. always
- b. often
This question explores the degree of involvement in boy-girl relationships, an important aspect of adolescent social development. It must be kept in mind that the age of participants could have a significant effect on relationships with members of the opposite sex. At a younger age girls may refrain from having close relationships with boys because these are discouraged or even forbidden by their parents. Older adolescent girls may also lack these types of relationships because they are often more mature than males of the same age but at the same time are not allowed to have male friends who are already out of school.

**Question 10:** How popular are you with girls?

- a. very popular
- b. popular
- c. average
- d. unpopular
- e. very unpopular

Girls who are popular amongst their female friends are probably the ones who also frequently engage in activities of a social nature. Being popular can be regarded as being liked by people and being included in various social events.

**Question 11:** How often do you participate in school sport?

- a. always
- b. often
- c. sometimes
- d. seldom
- e. never

Various kinds of sporting activities are offered to both boys and girls and it could be assumed that all pupils who are interested in sport could be catered for in the sport
programme. The sport programmes are organised in such a way that pupils can participate in various kinds of sport, without interference to their academic programme. Their participation in sport is determined by both the school requirements (i.e. that they have to participate in at least one summer and one winter sport) and the value they themselves place on participation. This is also dealt with in question 13.

Although these responses were fully explained to pupils, they could nevertheless attach different meanings to the words 'often', 'sometimes' and 'seldom'. The subjective nature of their answers must be considered in the interpretation of the results.

Question 12: **How important do you regard your participation in school sport?**

a. very important
b. important
c. ambivalent
d. not important
e. not at all important

It has been mentioned previously that pupils in schools such as those with limited numbers, are expected to participate in as many activities as possible. It inevitably results in pupils taking part in sporting activities which are not of their own choice. Another factor which may affect participation in school sport is that sport facilities in the community are also limited and pupils do not have many other options. This question tries to find out how important participants, as opposed to the school, consider participation in sport to be.

Question 13: **What is the primary motivation for your participation or non-participation in school sport?**

a. I like sport very much
b. I regard sport as a very important aspect of education
c. I take part in sport in order to live a balanced life
d. I take part in sport because I am expected to
e. I do not take part in sport because I do not like it at all
f. Other (please specify)
This question is intended to contain the justification for the answer to question 11. It is assumed that there could be reasons other than being sport orientated, which could determine a pupil's sport participation. Although responses (a), (b) and (c) can be considered as being equally positive, response (a) is meant to refer to a primary interest in and love for sporting activities in particular. Response (b) is more positive than (c) in that it refers to more specific activities and deals with more than a generally accepted attitude towards sport.

Question 14: *How often do you participate in physical exercise programmes other than school sport? (e.g. aerobic classes, karate, judo, etc)*

a. always  
b. often  
c. sometimes  
d. seldom  
e. never

The researcher is of the opinion that pupils who indicate that they are not taking part in school sport do not necessarily disregard all sport participation. There may be other reasons for their non-participation such as developing particular skills not offered by the school (e.g. karate).

Question 15: *If you have a choice regarding the size of the group in which you practice sport or exercise, will you prefer:*

a. large groups  
b. medium size groups  
c. small groups  
d. one other person  
e. doing it individually

It is assumed that while some pupils prefer sporting activities in which they are part of a team and which are of a competitive nature, there are others who are very sensitive to group interaction and criticism by their peers. Some of them are very critical of their own bodies and find it hard to accept their own physique. These pupils do not inevitably 'avoid'
sport participation, but may prefer individual participation in which few of their peers are involved.

Question 16: *If you have to participate in sport in a group, will you prefer:*

- a. a group consisting of boys and girls of any age
- b. a group of boys and girls your age
- c. a group of girls of any age
- d. a group of girls your age
- e. other (please specify)

This question is aimed at determining whether the age and sex of group participants would play a role in an individual's sport participation. It is assumed on the basis of the experience of the researcher, that pupils who are highly positive about sport participation (in particular at school level) are less likely to have strong preferences regarding the age and sex of the group participants.

Question 17: *How important do you regard a physical training programme offered during school hours?*

- a. very important
- b. important
- c. ambivalent
- d. not important
- e. not at all important

The physical training programmes offered at school do not always meet the needs of young people nor always seem meaningful to them. Those, however, who value physical fitness and are body conscious are expected to also value the importance of these training programmes at school.

Question 18: *How important do you regard participation in an exercise programme as you grow older?*

- a. very important
- b. important
c. ambivalent

d. not important

e. not at all important

This question also attempts to determine the pupil's, as opposed to the school's, evaluation of exercise and sport.

3.4 Administration

Permission for this research was granted in writing by the governing bodies of the two schools. The researcher undertook not to use the data in a comparative way between the two schools. Confidentiality had to be a first priority, as scores regarding intelligence were to be used in the investigation.

Prior to the administering of questionnaires the researcher personally gathered biographic information and academic results from school records. A suitable time for administering the questionnaires was arranged with the headmasters concerned.

The researcher met each standard during school hours and gave a brief introductory talk about the purpose of the study. They were thanked for their co-operation and willingness to take part in the study, and were assured of the confidential nature of identity and individual particulars. Normal examination procedures were adhered to, with each subject seated at a reasonable distance from her fellow-subjects.

Firstly the Physical self scale was administered. Each participant was issued with a pencil and a questionnaire which explained the answering procedure (See Appendices A and B). These instructions were read aloud to the subjects and they were allowed to ask questions in order to clarify any uncertainties.

Secondly the questionnaire on social involvement and sport participation was administered (Appendices C and D). Again the answering instructions were read aloud by the researcher. After all the participants had completed the questionnaires, they were returned to the
3.5 The scoring of the data

3.5.1 Physical self scale

For each of the 18 statements in this questionnaire the subjects had to select a response from five options (See Appendices A and B). The response number had to be indicated in the block on the right hand side of the questionnaire, next to the statement. The positive items (1, 2, 4, 7, 8, 10, 13, 14, 16) were scored as follows (Table 3.3 below):

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Completely false</td>
<td>1</td>
</tr>
<tr>
<td>2. Mostly false</td>
<td>2</td>
</tr>
<tr>
<td>3. Partly false and partly true</td>
<td>3</td>
</tr>
<tr>
<td>4. Mostly true</td>
<td>4</td>
</tr>
<tr>
<td>5. Completely true</td>
<td>5</td>
</tr>
</tbody>
</table>

For the negative items (3, 5, 6, 9, 11, 12, 15, 17, 18) the scores were to be reversed. By this system a person who says completely false to a negative item obtains a high score just as he does when he says completely true to a positive item. Thus high scores uniformly mean positive self description. A total score was then determined.

3.5.2 Social involvement and sport participation

This questionnaire consisted of 18 questions/statements in total (the first ten questions
dealing with social involvement and the remaining eight with sport participation) to which the subjects had to respond by choosing from five options (See Appendices C and D). The answers to all the questions/statements were scored as follows (Table 3.4 below):

**Table 3.4 Scores for social involvement and sport participation**

<table>
<thead>
<tr>
<th>Option</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>5</td>
</tr>
<tr>
<td>b</td>
<td>4</td>
</tr>
<tr>
<td>c</td>
<td>3</td>
</tr>
<tr>
<td>d</td>
<td>2</td>
</tr>
<tr>
<td>e</td>
<td>1</td>
</tr>
</tbody>
</table>

For each subject the scores on the two sections (social involvement and sport participation) were calculated separately, and the raw scores were then used for statistical analysis.

### 3.5.3 Academic achievement

The average percentage obtained in each of three recent examinations was determined for each individual. In order to account for differences in academic achievement caused by differences in intellectual ability the intelligence quotient (IQ) was taken into account as a co-variate in the analysis of variance. This means that provision was made for a high IQ not to be the only determinant of good academic achievement and a low IQ of poor academic achievement.

### 3.6 Statistical analysis of data

In processing the survey data, the first step was to check the questionnaires for completeness, accuracy and uniformity. The data was then coded and processed for
analysis. BMDP Software Version 1990: programme (Sun/Unix) was used in the analysis. Pearson's chi square tests of independence, as well as a one-way analysis of variance with co-variate were carried out.

The Pearson's chi square tests were used to determine the relationship between body image and social involvement, as well as between body image and sport participation. This is a non-parametric analysis which is used when data is assigned to separate and clearly defined categories. It deals with frequency and does not presume a normal distribution. For this type of calculation there has to be an index of the size of the difference between the empirical and the hypothetical frequencies. The chi square statistic is used for this purpose. The chi square tests furthermore enable the researcher to compare the empirical frequencies with a range of theoretical values in order to determine whether the differences between the two ranges can be assigned to chance (Fraenkel & Wallen 1993:201).

The null-hypothesis states that there is no relationship between body image, social involvement and sport participation. If the p-value is smaller than 0.05, the null-hypothesis is rejected at the 5%-level of significance.

A one-way analysis of variance (ANOVA) was used to determine the relationship between body image and academic achievement in three examinations, with the intelligence quotient taken into account as a co-variate.

If it could be shown that there are such relationships, then it could be argued that helping a schoolgirl improve in one of these areas may directly or indirectly promote development in another area.
The present study was designed to assess the relationship between

* body image and academic achievement
* body image and social involvement
* body image and sport participation,

for adolescent girls. Each of these issues will be attended to separately. Firstly, the statistical results will be given in the form of tables. Thereafter these will be discussed individually, followed by a discussion of the results together.

4.1 Body image and academic achievement

4.1.1 Results

It has been suggested that a relationship might exist between a girl's body image and her academic achievement. The girl's body image was measured by means of the Physical self scale. A total score between 18 and 90 could be attained (i.e. from a minimum score of one for each of the 18 questions to a maximum score of five for each of the questions). For the purpose of processing the data these scores were divided into four categories (Table 4.1 overleaf):
Table 4.1 Body image scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Scores</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>18-36</td>
<td>0</td>
</tr>
<tr>
<td>Medium</td>
<td>37-54</td>
<td>47</td>
</tr>
<tr>
<td>Good</td>
<td>55-72</td>
<td>113</td>
</tr>
<tr>
<td>Very good</td>
<td>73-90</td>
<td>20</td>
</tr>
</tbody>
</table>

According to the score attained on the Physical self scale, a participant was allotted to the poor, medium, good or very good body image category.

Academic achievement was indicated by the average percentage attained by each individual in the specified examinations. Intellectual ability was indicated by the total score on a group test (the New South African Group Test or the General Scholastic Aptitude Test) and was taken into account in the statistical analysis of data in order to eliminate the possibility of intelligence being the only determinant of academic achievement.

One-way analysis of variance (ANOVA) was performed firstly with the December 1992 marks as the dependent variable, body image (BI) as the factor and intelligence quotient (IQ) as the co-variate. This was followed by an ANOVA with the June 1993 marks and then with the September 1993 marks, again with body image as the factor and IQ as the co-variate.

Null-hypothesis:

The mean December mark will be the same for those with poor, medium, good as well as very good body image scores (the same hypothesis also applies for the June and September marks).
Alternative hypothesis:

The mean December mark for those with poor, medium, good and very good body image scores will not be equal (the same applies for the June and September marks).

The results of the ANOVA, using the December 1992 marks, are summarized below in Table 4.2.

Table 4.2 Results of the ANOVA using the December 1992 marks

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>f-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI</td>
<td>50,36399</td>
<td>2</td>
<td>25,18199</td>
<td>0,26</td>
<td>0,7713</td>
</tr>
<tr>
<td>Co-variate IQ</td>
<td>9346,97513</td>
<td>1</td>
<td>9346,97513</td>
<td>96,58</td>
<td>0,0000</td>
</tr>
<tr>
<td>Error</td>
<td>13356,09883</td>
<td>138</td>
<td>96,78332</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the December 1992 marks the f-statistic is 0,26, the degrees of freedom (df) 2,138 and the p-value 0,7713. The p-value is not <0,05 therefore the null-hypothesis is not rejected. This means that the mean mark for December is not significantly different for the various body image categories.

Results of the ANOVA using the June 1993 marks are summarized overleaf in Table 4.3.
Table 4.3 Results of the ANOVA using the June 1993 marks

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>f-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI</td>
<td>6,12525</td>
<td>2</td>
<td>3,06262</td>
<td>0,03</td>
<td>0,9738</td>
</tr>
<tr>
<td>Co-variate IQ</td>
<td>12410,50718</td>
<td>1</td>
<td>12410,50718</td>
<td>107,76</td>
<td>0,0000</td>
</tr>
<tr>
<td>Error</td>
<td>20039,53732</td>
<td>174</td>
<td>115,16975</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the June 1993 mark the f-statistic is 0,03, the df 2,174 and the p-value 0,9738. The null-hypothesis is not rejected. This means that the mean mark for June is not significantly different for the various body image categories.

Table 4.4 below summarizes the results of the ANOVA using the September 1993 marks.

Table 4.4 Results of the ANOVA using September 1993 marks

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>f-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI</td>
<td>55,42676</td>
<td>2</td>
<td>27,71338</td>
<td>0,26</td>
<td>0,7694</td>
</tr>
<tr>
<td>Co-variate IQ</td>
<td>16536,05186</td>
<td>1</td>
<td>16536,05186</td>
<td>156,62</td>
<td>0,0000</td>
</tr>
<tr>
<td>Error</td>
<td>18477,15711</td>
<td>175</td>
<td>105,58375</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For September 1993 the f-statistic is 0,26, the df 2,175 and the p-value 0,7694. Again the null-hypothesis is not rejected. This means that the mean mark for September is not significantly different for the various body image categories.

Table 4.5 summarizes the mean mark for December 1992, June 1993 and September 1993 by body image categories (overleaf).
Table 4.5 Mean mark for December 1992, June 1993 and September 1993 by body image categories

<table>
<thead>
<tr>
<th>Mean mark image</th>
<th>Poor</th>
<th>Medium</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>December</td>
<td>58,83</td>
<td>58,91</td>
<td>60,76</td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>54,87</td>
<td>54,48</td>
<td>54,39</td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>53,77</td>
<td>52,78</td>
<td>54,21</td>
<td></td>
</tr>
</tbody>
</table>

Statistically body image is not significant in the academic achievement of participants, the critical p-value being 0,7713 (December 1992), 0,9738 (June 1993) and 0,7694 (September 1993) at the 0,05% level of significance. This means that for this particular group of adolescent girls, body image and academic achievement have no significant connection.

As could be expected, the academic achievement of girls in this group does correspond with their IQ's. Chi square statistics show that intelligence is indeed significant in the achievement of pupils in each of three specified examinations. Statistical results are summarized below in Table 4.6.

Table 4.6 Intelligence quotient and academic achievement in the three specified examinations

<table>
<thead>
<tr>
<th>Examination</th>
<th>Chi square statistic</th>
<th>Degrees of freedom</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1992</td>
<td>65,512</td>
<td>25</td>
<td>&lt;0,0001</td>
</tr>
<tr>
<td>June 1993</td>
<td>96,182</td>
<td>25</td>
<td>&lt;0,0001</td>
</tr>
<tr>
<td>September 1993</td>
<td>106,689</td>
<td>25</td>
<td>&lt;0,0001</td>
</tr>
</tbody>
</table>
This may further indicate that intelligence is a major determinant in academic achievement and that other factors such as body image at best play only a secondary role or may only be reflected in isolated individual cases.

4.1.2 Discussion

Table 4.5 postulates that the body image of adolescent girls is not significantly related to their academic achievement. Consideration can now be given to reasons why no relationship was found. Burns (1982:208) found the self concept to be closely associated with academic achievement. He stressed that this relationship is most pronounced when measures of `academic self concept' are employed. Although body image and self concept are closely related, body image and `academic self concept' do not seem to have a similar relationship, and this study shows that body image does not prove to be significant in academic achievement.

Over the last couple of decades society, and particularly education, has put more and more emphasis on academic achievement, which is referred to by Burns (1982:203) as "the most dominant value operating in the educational system". Young people are urged to maintain high academic standards and to improve their qualifications. There is "heavy emphasis on competition" and teachers and parents apply "pressures ... on children to achieve academically" (Burns 1982:204). It could thus be argued that academic achievement has particularly strong motivational value to young people and plays a dominant role in their application of themselves, regardless of hindering factors such as a poor body image.

Furthermore, in the present socio-economic climate job opportunities are limited and young people may realise that their academic achievements and tertiary training could be a determining factor in finding a job and establishing a career. In order to get admission to tertiary institutions young people have to meet certain academic standards. These are frequently adjusted, with increasingly higher standards required to deal with a rapidly increasing number of applicants. High school pupils realise that they need to develop their academic potential and obtain good grades in order to be accepted by these institutions.

In recent years there has been much concern in the field of medicine about human fitness
and a healthy lifestyle. People are advised against the emphasis on a `perfect body' at the expense of a balanced diet and proper health care. Many people, including adolescents, may master or disregard their body image difficulties by pretending that they are primarily concerned about their health and that physical appearance is of secondary or no importance to them at all.

Finally, other factors which outweigh the negative effects of a poor body image are parental interest, love and acceptance. These are regarded by Burns (1982:201) as cultivating a "predisposition towards achievement ..."

When considering the possible reasons why a significant relationship was not obtained, it is however essential to state one important cautionary statement viz. that the manner in which the body image scores had been obtained can be criticized from a methodological viewpoint. The body image scores obtained from the Physical self scale were divided into four categories, namely poor, medium, good and very good. Of the 180 participants in this study, not one participant `proved' to have a poor body image. This could point out a weakness in the methodological procedure because from her everyday experience with the girls, the researcher certainly thinks that at least some of the girls evidence a very poor body image. This is sometimes expressed in poor bodily posture or an unwillingness to engage in activities in which the body is exposed more fully, as in swimming and physical training. These observations have been confirmed by some of the pupils during training and interviews. Perhaps one could have obtained a more reliable indication of body image by using a more extensive body image satisfaction questionnaire in which the various body parts are scored separately. This gives a participant the opportunity to focus on various aspects of the body, instead of reporting on the body as a whole.

Regarding the academic achievement score a standardized achievement test could have been administered instead of using the academic school record of participants. This could account for differences in academic standards between the schools involved. Any results stemming from the statistical analyses must be viewed against the means used to obtain the data.

If the body image scores (which do not point out any poor body image) nevertheless are
a true reflection of how participants experience their own bodies, then these results do not support research findings which suggest that females are rarely satisfied with their bodily appearance (Berscheid et al. 1973:122; Mintz & Betz 1986:185; Paxton et al. 1991:375; Rauste-von-Wright 1989:81). This group of adolescent girls do not have extremely negative experiences of their own bodies. This may further suggest that being less satisfied with the body does not necessarily imply a poor body image.

The body image scores which in general are average, good or very good, may also be due to convictions which encourage the individual to accept and be content with bodily and facial features. Many educationists and psychologists strongly promote the idea that the individual should accept herself (which includes accepting her appearance) in order to accept others and be accepted by them. This has been acknowledged by the researcher through interaction with this group of girls in physical training and as counsellor. A girl who feels deeply unhappy with her appearance and who is often emotionally affected by her so-called imperfections, will possibly not admit this in the attempt to create the impression that she accepts herself unconditionally. Furthermore, although the individual may experience conflicting feelings about her appearance, she may refrain from indicating this in a questionnaire, considering it to be the inappropriate thing to do.

4.2 Body image and social involvement

4.2.1 Results

After having had close contact over a period of time with most of these girls, the researcher is of the opinion that body image plays a significant role in their social involvement. There are girls who, for no apparent reason, very seldom attend social activities. It is argued that at least some of these girls do not feel good about their bodies and consequently do not participate freely in social activities.

A questionnaire (Appendices C and D) was administered in order to determine the participant's perception of her social involvement. A score between 10 and 50 could be attained (from a minimum of one mark for each of the ten questions to a maximum of five
marks for each of the questions). These scores were grouped together in the following categories (Table 4.7 below):

Table 4.7 Social involvement scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>10-19</td>
<td>12</td>
</tr>
<tr>
<td>Medium</td>
<td>20-29</td>
<td>56</td>
</tr>
<tr>
<td>Good</td>
<td>30-39</td>
<td>98</td>
</tr>
<tr>
<td>Very Good</td>
<td>40-50</td>
<td>14</td>
</tr>
</tbody>
</table>

Null-hypothesis:

Girls who have poor, medium, good or very good body images are socially equally involved.

Alternative hypothesis:

The better the body image of girls, the more they will be socially involved.

The hypothesis of the relationship between body image and social involvement was tested using the chi square test. Results obtained are summarized overleaf in Table 4.8 (frequency table) and in Table 4.9 (percentages of column totals).
Table 4.8  Body image (BI) and social involvement (frequency table)

<table>
<thead>
<tr>
<th>Social inv</th>
<th>Poor</th>
<th>Medium</th>
<th>Good</th>
<th>Very good</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Medium</td>
<td>7</td>
<td>20</td>
<td>20</td>
<td>0</td>
<td>47</td>
</tr>
<tr>
<td>Good</td>
<td>5</td>
<td>32</td>
<td>64</td>
<td>12</td>
<td>113</td>
</tr>
<tr>
<td>Very good</td>
<td>0</td>
<td>4</td>
<td>14</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>56</td>
<td>98</td>
<td>14</td>
<td>18</td>
</tr>
</tbody>
</table>

Table 4.9  Body image and social involvement (percentages of column totals)

<table>
<thead>
<tr>
<th>Social inv.</th>
<th>Poor</th>
<th>Medium</th>
<th>Good</th>
<th>Very good</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>0,0</td>
<td>0,0</td>
<td>0,0</td>
<td>0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>Medium</td>
<td>58,3</td>
<td>35,7</td>
<td>20,4</td>
<td>0,0</td>
<td>26,1</td>
</tr>
<tr>
<td>Good</td>
<td>41,7</td>
<td>57,1</td>
<td>65,3</td>
<td>85,7</td>
<td>62,8</td>
</tr>
<tr>
<td>Very good</td>
<td>0,0</td>
<td>7,1</td>
<td>14,3</td>
<td>14,3</td>
<td>11,1</td>
</tr>
<tr>
<td>Total</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>

The chi square statistic is 17,177, the degrees of freedom 6 and the p-value 0,0087. The null-hypothesis can be rejected at both the 5%-level and 1%-level of significance. This means that there is a significant positive correlation between the body image and social life of this group of adolescent girls.
Table 4.9 shows that all those participants whose social involvement scores fall into the very good category either have good or very good body image scores. No one in the very good social category has a poor or medium body image and no one in the poor social category has a very good body image.

4.2.2 Discussion

Although the methodology of this study does not enable the determination of any causal relationship, the statistical findings summarized in Tables 4.8 and 4.9 indicate that the body image of this group of adolescent girls and their social involvement are strongly related.

However, it is the experience of the researcher that those girls who have a positive perception of their bodies tend to be more willing to engage in social activities and interpersonal relationships than those with poor body images. Conversely, those with poorer perceptions of their bodies tend to use their body image as an excuse for not attending social functions or for their so-called lack of interest in relationships with the opposite sex.

In the literature it is suggested that the feelings a girl has towards her physical appearance are similar to the feelings she has towards herself generally (self concept) (Balogun 1987:263; Gerdes & Moore 1989:80; Jourard & Secord cited by Burns 1979:155; Lerner & Padin cited by Rauste-von Wright 1989:72; Mintz & Betz 1986:185; Napoli et al. 1985:81; Powers & Erickson 1986:37). This in turn has several implications for her social life. A good self concept adds to a girl's self-confidence and enables her to relate better to other people. Consequently she will feel socially more competent and will engage in interpersonal relationships more freely.

Researchers such as Fischer (1986:150) and Lerner et al. (cited by Littrell et al. 1990:77) claim that body image plays a key role in the social life of the adolescent. According to Berscheid et al. (1973:104) those who have good body images relate better to other people and especially to members of the opposite sex than do those who have poor body images. Jensen (1985:102) and Berscheid et al. (1973:104) suggest that physical attractiveness is positively correlated with interpersonal relationships and popularity. Kallen & Doughty (1984:95) claim that physical appearance influences the ability of an individual to meet potential mates, and Freedman (cited by Littrell et al. 1990:78) suggests that adolescents
consider an attractive physical appearance "essential for popularity with boys". These findings emphasise the importance of having a good body image particularly during adolescence when much focus is put on physical appearance, social relations and acceptance by the peer group.

In her work as counsellor the researcher has often encountered social problems amongst some adolescents which, upon closer investigation, seem to originate from body image difficulties. Some of these adolescents do not seem to feel accepted by their peers and they often lack meaningful relationships with members of the opposite sex. This often gives rise to maladjustment in school and/or hostel and may lead to problems of a more serious nature.

In dealing with this kind of problem amongst girls it can be argued that the enhancement of a girl's body image will enable her to become socially more involved and to engage more readily in interpersonal relationships. It is suggested that at least some of the problems can be dealt with successfully through intervention of this nature (elaborated on in Chapter 5.3).

4.3 Body image and sport participation

4.3.1 Results

The body plays a key role in physical activities such as sport and fitness programmes and many of these activities are focused on improving bodily appearance, fitness and/or health. With regard to physical activities at school such as sport and physical training, the researcher has noted that some girls continuously find excuses other than illness or physical handicaps for their non-participation. Upon closer investigation it was evident that at least some of these girls had distorted perceptions regarding their bodies which affected their participation in physical activities. It has been suggested that there is a relationship between the way a girl experiences her body (body image) and her participation in sport.

A questionnaire (Appendices C and D) was administered in order to determine how the concerned group of adolescent girls perceived their participation in sport. The scores could
range from eight (one mark per question) to 40 marks (five marks per question). For statistical purposes the scores were divided into the following categories (Table 4.10 below):

Table 4.10  Sport participation scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>8-15</td>
<td>14</td>
</tr>
<tr>
<td>Medium</td>
<td>16-23</td>
<td>56</td>
</tr>
<tr>
<td>Good</td>
<td>24-31</td>
<td>73</td>
</tr>
<tr>
<td>Very good</td>
<td>32-40</td>
<td>37</td>
</tr>
</tbody>
</table>

Null-hypothesis:

Girls with **poor, medium, good** and **very good** body images will be equally involved in sporting activities.

Alternative hypothesis:

The better the body image of girls the more they will participate in sporting activities.

The hypothesis of the relationship between body image and sport participation was tested using the chi square test. The results are summarized overleaf in Table 4.11 (frequency table) and Table 4.12 (percentages of column totals).
### Table 4.11 Body image (BI) and sport participation (SP) (frequency table)

<table>
<thead>
<tr>
<th>BI</th>
<th>SP</th>
<th>Poor</th>
<th>Medium</th>
<th>Good</th>
<th>Very good</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td>9</td>
<td>18</td>
<td>13</td>
<td>7</td>
<td>47</td>
</tr>
<tr>
<td>Good</td>
<td></td>
<td>5</td>
<td>36</td>
<td>53</td>
<td>19</td>
<td>113</td>
</tr>
<tr>
<td>Very good</td>
<td></td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>14</td>
<td>56</td>
<td>73</td>
<td>37</td>
<td>180</td>
</tr>
</tbody>
</table>

### Table 4.12 Body image and sport participation (percentages of column totals)

<table>
<thead>
<tr>
<th>BI</th>
<th>SP</th>
<th>Poor</th>
<th>Medium</th>
<th>Good</th>
<th>Very good</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td></td>
<td>0,0</td>
<td>0,0</td>
<td>0,0</td>
<td>0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td>64,3</td>
<td>32,1</td>
<td>17,8</td>
<td>18,9</td>
<td>26,1</td>
</tr>
<tr>
<td>Good</td>
<td></td>
<td>35,7</td>
<td>64,3</td>
<td>72,8</td>
<td>51,4</td>
<td>62,8</td>
</tr>
<tr>
<td>Very good</td>
<td></td>
<td>0,0</td>
<td>3,6</td>
<td>9,8</td>
<td>29,7</td>
<td>11,1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>

The chi square statistic is 30,916, the degrees of freedom 6 and the p-value is <0,0001. The null-hypothesis can be rejected at both the 1%- and 5%-level of significance. This means that there is a significant positive relationship between the body image and sport participation of this group of adolescent girls.
4.3.2 Discussion

The results summarized in Tables 4.11 and 4.12 postulate that the body image and sport participation of this group of girls are strongly related.

Although this study cannot claim to indicate any causal relationship, it has been the researcher's experience that adolescent girls who appear to have a poor body image are the ones less likely to participate in sporting activities and physical exercise. In spite of an apparently healthy body some of these girls imply that they do not feel good about their appearance and consequently prefer not to participate in activities in which much focus is on the body.

The literature, however, suggests a causal relationship in the opposite direction. A considerable number of researchers claim that body image can be enhanced by participation in a fitness programme (Adame et al. 1991:94; Caruso & Gill 1992:422; Zion cited by Folkins & Sime 1981:378). Foxcroft (1981:26) and Balogun (1987:263) claim that physical activity has a positive effect on the body image of an individual.

Literature and personal experience suggest a dynamic interplay between body image and physical activities. The literature seems to focus on the effects which physical activities have on body image, while experience shows that a girl's body image can influence her participation in sporting activities.

The relevance of these findings can now be put under scrutiny. In schools with limited numbers it is considered essential that as many pupils as possible participate in sporting activities offered by the school. This enables sport organisers to compile teams for practice and competition purposes and to offer a wide range of such activities. Nevertheless, it is the researcher's observation that for no apparent reason at all a number of pupils simply do not engage in physical activities of any nature and are not available for inclusion in sport programmes. According to results obtained in this study body image probably accounts for at least some of the girls' non-participation in sport. Early identification of body image difficulties and a subsequent intervention in order to address these difficulties could encourage at least some pupils to involve themselves in school sport programmes.
A number of researchers have concluded that physical exercise and fitness training relate positively to mental and emotional well-being and the development of a healthy self concept (Caruso & Gill 1992:416; Folkins & Sime 1981:381; Tucker 1987:271). The self concept in turn plays an integral role in the life of the individual and its implications should not be underestimated. According to results obtained in this research project, a girl's body image and her participation in physical activities are strongly related. In order to improve her mental and emotional well-being she should be encouraged to participate in physical activities and this could possibly be done by an accompanying improvement in her body image.

It is further suggested that, in order to counteract the effects of a poor body image, a girl should be encouraged to engage in physical activities such as a fitness programme. The researcher has observed phenomenal body image changes take place and an increase in self-confidence after participation in an aerobic exercise programme. This relationship has been confirmed by Tucker (1987:267) who claims that as fitness increases, people become more self-confident. Although his results may not be directly applicable to other groups, research has convincingly shown that physical development programmes for retarded children result in more positive body image and exercise programmes appear important for the development of social skills (Folkins & Sime 1981:383). It must be kept in mind that researchers have concluded that such programmes should meet specific requirements regarding the kind of physical activity as well as the duration of participation in activities of such a nature.

Body image proves to be highly significant in the social life and sport participation of adolescent girls and for that reason it is of the utmost importance for those involved with adolescents to cultivate a sensitivity regarding body image issues and to ensure the sound development of the physical self concept.
4.4 Social involvement and sport participation

4.4.1 Results

At the end of the first chapter it was suggested that it would be interesting to explore the possible relationship between social involvement and sport participation.

Null-hypothesis:

Girls with poor, medium, good and very good social involvement scores will be equally involved in sporting activities.

Alternative hypothesis:

The sport participation of girls will be different for those whose social involvement scores fall into different categories.

The hypothesis of the relationship between social involvement and sport participation was tested using the chi square test. The results are summarized below in Table 4.13 (frequency table) and overleaf in Table 4.14 (percentages of column totals).

Table 4.13 Social involvement (SI) and sport participation (SP) (frequency table)

<table>
<thead>
<tr>
<th>SI</th>
<th>SP</th>
<th>Poor</th>
<th>Medium</th>
<th>Good</th>
<th>Very good</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>Poor</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Medium</td>
<td>8</td>
<td>22</td>
<td>16</td>
<td>10</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>2</td>
<td>28</td>
<td>49</td>
<td>19</td>
<td>98</td>
<td></td>
</tr>
<tr>
<td>Very good</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>56</td>
<td>73</td>
<td>37</td>
<td>180</td>
<td></td>
</tr>
</tbody>
</table>
### Table 4.14  Social Involvement (SI) and sport participation (SP) (percentages of column totals)

<table>
<thead>
<tr>
<th>SI</th>
<th>SP</th>
<th>Poor</th>
<th>Medium</th>
<th>Good</th>
<th>Very good</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>28.6</td>
<td>8.9</td>
<td>2.7</td>
<td>2.7</td>
<td>6.7</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>57.1</td>
<td>39.3</td>
<td>21.9</td>
<td>27.0</td>
<td>31.1</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>0.0</td>
<td>1.8</td>
<td>8.2</td>
<td>18.9</td>
<td>54.4</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The chi square statistic is 35.668, the degrees of freedom 9 and the p-value less than 0.0001. The null-hypothesis could be rejected at both the 5%- and 1%-levels of significance. This means that there is a strong relationship between the social involvement and sport participation of this group of girls.

#### 4.4.2 Discussion

The results summarized in Tables 4.13 and 4.14 postulate that the social life and sport participation of this group of girls are closely connected. The direction of the relationship is unknown, however, as no causal relationship between these two aspects was indicated in this study. The picture emerging is one of a dynamic interplay between the aspects of body image, social involvement and sport participation, and it could be expected that an improvement in one area could directly or indirectly promote development in other areas. If a girl could be encouraged to participate in physical activities, this could enhance her body image and at the same time improve her social life.
4.5 Summary

During the adolescent years numerous physiological, social and emotional changes take place. It is a period often characterized by uncertainty. Physical sexual maturity is accomplished and relationships with the opposite sex are established. The adolescent (girl) becomes more actively involved in social activities and gets feedback regarding her popularity. This in turn has a great impact on her self concept and consequently on other areas of her life. According to findings in this research project there are highly significant correlations between a girl's body image, her participation in sport and her social involvement. It has been suggested that by improving a girl's body image her social life and involvement in physical activities can be stimulated and conversely, participation in physical activities can enhance the body image and improve her social life. These can be expected to positively affect other areas of her life (Corey & Corey 1990:146). Although body image was also hypothesized to be significant in the academic achievement of girls, this was not statistically verifiable.

These findings are of great relevance to all those who deal with adolescent girls, and in particular parents and educationists who can address these issues through their everyday interaction with these girls.
CHAPTER 5
CONCLUSIONS

5.1 Summary

This final chapter attempts to bring together the various strands of the study. After a brief introduction to the initial problem, a summary of the findings is presented, and then attention is given to the implications and recommendations which flow from these. Finally, the limitations of this study are discussed and recommendations are made for further research.

Ever since the earliest times much focus has been put on a woman's physical appearance and she is often valued purely on her looks. A great deal of stress is put on women in western cultures by the constant promotion of idealized images of perfection. The message that comes across in many magazines and various other media outlets is that a woman ought to have the 'perfect' appearance in order to be competent and desirable. These messages over-emphasise female beauty and bodily features and are completely unrealistic, but they affect the opinion of people about themselves and others. In numerous advertisements the female figure is taken advantage of in order to promote a wide range of commodities.

Advertisements brainwash the public into believing that fat equals unattractive, and youthful lissom 'women' ... are used to advertise all the 'fun' things in life ... so it is not surprising that some women consider the only stumbling block between them and perfection is their physical appearance.

(French 1987:34)
Adolescent girls who are going through a phase of increased sensitivity about their appearance are especially vulnerable to these pressures and manipulative advertising. The undue amount of emphasis on a 'perfect body' has far reaching effects on their lives. They focus intensely on their appearance in order to meet social norms and to ensure acceptance by their peers. Coleman (cited by Jensen 1985:47) remarks that good looks are even more important to adolescents than academic achievement, in particular when the latter is not valued by the peer group.

The importance of a good body image is emphasised by its close association with the self concept. The self concept consists of five components. The physical self concept (body image) is one of the first components in the formation of the self concept and is also regarded as the core element of the self concept. Several studies have determined a strong relationship between the body image and the self concept and researchers claim that the feelings a person has regarding her body are similar to those she has of herself generally (Balogun 1987:263; Gerdes & Moore 1989:80; Jourard & Secord cited by Burns 1979:155; Lerner & Padin as cited by Rauste-von Wright 1989:72; Mintz & Betz 1986:185; Napoli et al. 1985:81; Powers & Erickson 1986:37).

Educationists and psychologists have been intrigued by the significant effect the self concept has on the life and behaviour of the individual. Researchers have investigated and studied these effects and determined strong relationships. Amongst these relationships are those of the self concept with academic achievement, social behaviour and participation in physical activities.

Additionally, there are several researchers who claim that a person is fundamentally affected by the ways she views her body. As the body image is such an important component of the self concept it is argued that it probably also is related to academic achievement, social involvement and sport participation.

The aim of the present study was to determine the relationship between the body image of an adolescent girl and her social involvement, sport participation and academic achievement.
Data was gathered from 180 high school girls in two rural, secondary schools by means of questionnaires and school records. Relationships were then determined by statistical analysis.

Results failed to confirm a relationship between the body image and academic achievement of these girls. However, strong relationships were found between body image and social involvement, between body image and sport participation, and between social involvement and sport participation.

Although these results cannot merely be generalised beyond the particular sample, they may be considered by those involved with adolescent girls.

5.2 Implications and recommendations

5.2.1 Body image and social involvement

The findings suggest that body image and social involvement are strongly related. Although no causal relationship has been determined in this study, the literature suggests that body image contributes to social involvement.

A good body image has positive implications for a girl's social relationships. Her positive attitudes towards her body become closely associated with attitudes towards herself generally (self concept) (Balogun 1987:263; Gerdes & Moore 1989:80; Jourard & Secord cited by Burns 1979:155; Lerner & Padin cited by Rauste-von Wright 1989:72; Mintz & Betz 1986:185; Napoli et al. 1985:81; Powers & Erickson 1986:37). In social relationships a good self concept plays an important role as it enables a girl not only to accept herself and others, but also to relate well to other people (Rogers cited by Van Zyl 1983:25). If a girl has a positive body image this forms a sound basis for establishing good interpersonal relationships.

Feeling good about her body also makes a girl feel that much happier generally. She is unlikely to be constantly concerned at or discontented about her body and is more likely
to readily accept the changes which take place in the body during adolescence. This in turn probably contributes to a girl's mental health and emotional stability (Brooks-Gunn et al. 1989:51), as well as to her interpersonal relationships. At school level this is invaluable as adolescents continuously deal with difficulties regarding their personal development, social and emotional issues, academic pressures and relationships with parents and other authority figures.

Not only does body image play an important role in the lives of girls at school level, but it is also relevant in the labour market. In many sectors there are extremely high standards for physical appearance and women in particular have to meet these requirements. During personal interviews the body is the first means by which a person expresses who she is. The perception a person has of her own body largely determines how she presents her body and what messages she sends out to other people regarding herself. This impression can be of decisive importance in the appointment of a candidate. It is of great importance that a girl be helped to acquire a positive body image in order to deal with these demands.

On the other hand, Corey & Corey (1990:146) write that negative self-perceptions of people (girls) detrimentally affect their social involvement. They illustrate that a girl who has a poor body image often behaves in a way which creates the impression that she does not regard herself worth caring for. People react to this by avoiding social contact with her which in turn reinforces her poor body image. Consequently she becomes more reserved and her interpersonal relationships and social life are affected negatively. She may conclude that nobody likes her or cares for her.

There are girls who feel physically unattractive and who feel that they are at a disadvantage in relationships with the opposite sex. If they could be helped to acquire a better body image they would feel better about themselves and their attractiveness to boys. The focus is then directed away from physical beauty and this could well result in their realizing that they have other qualities which are of equal or greater importance in their social relationships.

The close association between a girl's body image and her self concept, as well as the strong relationship her body image has with her social involvement are issues of great
significance in the life of the adolescent girl. These should be addressed earnestly and with great sensitivity. There are different ways in which to help a girl improve her body image and consequently become more socially involved and competent in interpersonal relationships.

In a school environment the issue of body image can be addressed in various ways and on various levels. Firstly it can be dealt with on an individual basis. In particular cases a referral to a professional counsellor may be required. Secondly, body image issues can be addressed in group guidance lessons. The physical, emotional and social changes which take place during puberty and adolescence are topics(themes) which can be investigated and discussed. This could result in a better understanding amongst young people of certain difficulties which may present during this phase of life. It could furthermore contribute to a healthy perception of the body and the self generally.

Appropriate video material could be used additionally in group sessions. This includes programmes on sexuality, personal growth and development, interpersonal relationships, body care, and health and fitness programmes.

Body image issues could further be linked to matters in various other subject fields. In physical training sessions a girl has the opportunity to get to know her own body and physical attributes through physical contact and movement. This could help her acquire a more realistic and healthy perception of her own body. She also learns to care for her body by means of healthy nutrition and appropriate exercises.

Sporting activities are ideal opportunities to deal with body image issues. A girl could be encouraged to participate in physical activities (for example swimming or a fitness programme) which could help her improve her body image. As a girl acknowledges the positive results of her participation in physical activities she will not only feel better about her body but this will also cultivate a sense (although limited) of being in control. At the same time caution must be expressed about the danger of encouraging a tendency towards anorexia nervosa and bulimia which are considered by many to be excessive attempts at control (Romeo 1984:552).
In dealing with body image issues, whether it be on an individual basis or in group guidance sessions, emphasis should be placed on the advantages of a good body image. The relationship between body image and interpersonal relationships, social activities and sport participation could be pointed out. These are issues which naturally have a high priority in the life of the adolescent girl.

A girl should furthermore be guided to assess her own body image and identify difficulties she might have in this regard. By means of interviews, psychometric testing and/or evaluation relevant information could be gathered.

One of the most essential parts of intervention of this nature is the process of distinguishing between attributes which could not be altered and which have to be accepted (like facial features and bone structure) and those which are subject to change. Facilitating change could include health care and nutrition, hair, skin and nail care, appropriate exercising and/or dieting.

5.2.2 Body image and sport participation

Results furthermore indicate that there is a highly significant correlation between the body image of adolescent girls and their sport participation. A dynamic interrelationship between these two factors has been suggested, with the researcher's experience suggesting that a good body image encourages participation in sporting activities while the literature indicates that body image is enhanced by participation in physical activities.

In addition to its health and stress reduction qualities, sport participation is essential in an educational programme. Its value is not only measured in terms of standards achieved at regional and/or provincial level, but it is also valued for its physiological and psychological benefits. Psychological benefits include decreased anxiety, increased self-confidence, improved mood, an increased self-esteem and an improved self concept (Berger & Owen 1988:149; Caruso & Gill 1992:416; Tucker 1987:267).

The old dictum 'a healthy mind in a healthy body' is recognized in this context. Participation in a fitness or an exercise programme is believed to have salutary effects on the mind of
the participant (Caruso & Gill 1992:416; Tucker 1987:267). As the level of fitness increases and/or body proportions change positively (the body gains aesthetical value), a person feels better about her body and herself. If a girl could be encouraged to participate in some kind of physical activity this in turn could help her feel better about herself generally.

Participation in physical activities has numerous benefits which vary in nature. Exercising (its nature is not discussed in this context) is often recommended as a means of weight reduction. For the adolescent girl who is often extremely conscious of her body and of the social standards regarding attractiveness, being overweight may cause serious body image difficulties and unhappiness. If she could lose weight through participation in an exercise programme (preferably in combination with a healthy diet), for example, she will feel better about her appearance and consequently experience an improvement in her body image.

The adolescent girl often encounters body image difficulties due to the numerous physical and emotional changes which take place during this period of her life. She often fails to accept these changes and lacks the knowledge and confidence to deal with them effectively. Consequently she feels 'uncomfortable' with her body and is more reserved in situations where the body is open to public scrutiny. At school such situations include physical training and sport in which participants are expected to wear outfits more revealing than their school uniform. Addressing body image difficulties could help some girls to involve themselves in physical activities and to gain the positive benefits which have already been mentioned.

A girl who is not actively involved in physical activities and who does not have the confidence to do so, could be encouraged to participate in physical activities of such a nature that she can initially do it in her own privacy. This includes aerobic and/or fitness exercises which are on audio cassettes or video tapes, cycling, swimming, and activities in which exercising equipment are used at home. Once a girl has managed this she will probably feel more confident to participate in activities together with other pupils.

5.2.3 Social involvement and sport participation

Results indicate that there is a highly significant correlation between the social involvement
of adolescent girls and their sport participation. Although no causal relationship has been determined, the dynamic interrelationships between the various factors suggest that an improvement in one area could be expected to promote development in other areas.

5.2.4 Body image and self concept

This study focused on the body image (physical self concept) of girls and its relationship with academic achievement, with social involvement and with sport participation. Much research has been done previously in which a strong relationship between body image and self concept has been determined (Balogun 1987:263; Berscheid et al. 1973:127; Fischer 1986:637; Gerdes & Moore 1989:80; Jourard & Secord cited by Burns 1979:155; Lerner & Padin cited by Rauste-von Wright 1989:72; Mintz & Betz 1986:185; Napoli et al. 1985:81; Powers & Erickson 1986:37). As the self concept has a great impact on the life of the individual and plays a major role in determining the extent to which a girl will develop her potential (Coopersmith & Feldman, date unknown: 193) body image is also expected to be of importance in this regard. For this reason in particular, those who are involved with adolescent girls should strive to ensure the sound development of the body image and self concept.

At school there are numerous demands and challenges which the adolescent girl has to deal with effectively. These are not of an academic nature only, but involve demands associated with leadership positions, qualities required for public speaking and organizational skills. Purkey (1970) emphasises that the individual behaves in accordance with her self concept which means that a healthy self concept is indispensable in order to cope well with demands of this nature. As the body image and self concept are strongly related, the enhancement of the body image is expected to contribute towards a better self concept.

In summary, it is strongly emphasised that a good body image may have far reaching effects on the life of the adolescent girl and needs to be attended to in order to promote its positive implications for personal development and growth. This can be done in schools where difficulties in this area often present themselves. Parents, in addition, can be informed about body image difficulties which girls may experience in order to equip them
to address this issue or at least cultivate a sensitivity towards it.

5.3 Limitations

5.3.1 Research instruments

5.3.1.1 Physical self scale

Results obtained in this project show that of the 180 girls who completed the questionnaire not a single one obtained a very low score which would have indicated a poor body image. This could mean that no one in this particular group of girls experiences severe body image difficulties. On the other hand, it could be argued that the instrument was not sensitive enough to pick up the subtleties indicating such difficulties.

This questionnaire cannot claim to be an exhaustive measure of body image. No doubt more extensive means could provide a more detailed set of results. In this regard Fischer remarks that:

With few exceptions, previous research has not detected significant correlations among the many presumed measures of body image. Also, there is little evidence of consistency in factor analytic studies involving body image indices. One is left with the impression that there are multiple relatively independent body image dimensions.

(Fischer 1986:632)

In this study no distinction has been made between the body image dimensions which are identified and defined by some researchers --

Public body-consciousness is attention focused on external aspects of one's body which are visible to others....Body-competence refers to attention focused on the functioning of one's body... Private body-consciousness identifies attention focused on the internal aspects of one's body, not visible to others. The satisfaction a woman has with her body (body-cathexis) may depend on the relative importance she places on each of these aspects of her body-image.

(Kelson 1990:282)
A more differentiating approach towards the body image concept could have produced a more detailed set of results.

5.3.1.2 Questionnaire on social involvement

This questionnaire was not an objective means of determining these scores as it was largely dependent upon the pupils' subjective perception of their social involvement. These pupils, furthermore, are exposed to very few social occasions and their involvement in such activities can hardly be accurately determined on a frequency scale. In rural areas pupils have fewer social opportunities and facilities such as cinemas, restaurants, discos, icerinks and game centres than do those in urban areas. They are largely dependent upon that which is offered by the schools. As these facilities are relatively few, it is difficult to distinguish between those pupils who are socially orientated and those who are not. A considerable number of pupils board in the school hostel, which could imply that they attend social functions purely as an opportunity to get out of hostel and not because they are necessarily socially involved. Conversely, there might be girls who are socially inclined, but do not necessarily participate in the kind of social activities which are offered. This could create the impression that they are not very socially involved.

5.3.1.3 Questionnaire on sport participation

In schools with a relatively small population sport participation has a high priority. Larger numbers of participants enable coaches to compile teams and to offer a wide variety of sporting activities. Pupils are furthermore encouraged to participate in more than one kind of sport for the same reasons as mentioned. Very often pupils do not take part in sporting activities out of their own choice, but for various other reasons, including school and peer pressure.

In some schools peer pressure is extremely powerful and pupils are only regarded favourably by their peers if they participate in specific kinds of sport. Rugby and netball are amongst the most popular sporting activities. If, for example, a girl does not play netball, she tends not to be included in group activities and her opinion is not respected by her peers. Coleman reports that many young people will go to extraordinary lengths to meet
the demands of the group (cited by Jensen 1985:46-47). Against this background, it may be argued that peer pressure is a major contributor to sport participation and this could complicate the results sought in this project.

With regard to the questions which deal with physical training as a component of sporting activities, one should bear in mind that the attitudes of pupils towards a physical training programme often appear to be determined by the teacher who offers it. As a result of staff reduction, schools seldom have the services of a qualified physical training teacher and the programme is then offered by a staff member who does not necessarily have any interest in it. This state of affairs could affect the enthusiasm of both the teacher and the pupils and could lead to negative attitudes amongst pupils towards a physical training programme.

5.3.2 Sample

5.3.2.1 Composition of the sample: race

The research group was considered to be either Afrikaans or English speaking. This was done in view of the fact that all of them were exposed to an academic environment where either Afrikaans or English was the medium of instruction. In this study it was not taken into account that the home language of many of these girls is Xhosa and that they had to complete this questionnaire in their second language. This could have influenced their interpretation of questions and their comprehension of issues addressed in this study (Jensen 1985:43).

Secondly no provision was made for cultural differences in compiling the questionnaires. As a result white pupils could probably identify more easily with some of the issues than could black and coloured girls. Even within a specific cultural group there could have been differences regarding their identification with some of the issues mentioned. This is especially true for their perception of their bodies. Marsella et al. (1981:361) remark that different cultural groups can have "different views toward the body as well as different levels of body satisfaction."

Those girls who were earlier admitted to Model C schools could have had different
experiences regarding their academic training, social life and sport participation than those who were admitted only recently. The results may reflect a transitional stage and may not give a true reflection of the 'normal situation'.

5.3.2.2 Composition of the sample: age

The research project involved all the girls in two selected high schools. They were regarded as one group, although they were drawn from every standard group from Standard 6 to Standard 10. Girls between the ages of 12 and 19 years were included in the research group. Although all participants can be categorized as 'adolescents', there are many variations and differences which have been ignored.

For example the young adolescent may be more preoccupied with her body image than the older girl because of the physical changes and development which take place during this period in her life. The same applies for slow and rapid matures. Rauste-von Wright (1989:81) claims that "problems relating to adolescents' physical self-image tend to be different for slow and rapid matures". These subtleties have not been explored.

The age of participants could also play a role in their social involvement and their perception thereof. It could be argued that younger girls may not be allowed by their parents to attend social functions as freely as older girls are. Conversely, younger girls may even be more keen to attend social occasions such as dances as these may be the first opportunities in their school career.

Furthermore, in their late adolescence some girls may present as being less social than their younger counterparts. At the age of 17 or 18, those girls who have matured faster than their male counterparts, may engage in relationships with older boys who have already completed their school careers. As a result they are involved in social activities other than those mentioned in the questionnaire.

With respect to sport it may be argued that the young adolescent girl who is a slow maturer will participate more freely in sporting activities as she has yet to experience physical changes to her bodily dimensions.
These are aspects which were not taken into account within the scope of this study.

5.4 Further research

This study highlights the need for further research which will, amongst other things, address the subtleties already mentioned.

A more accurate means of measuring body image could be used in order to recognize the multidimensional nature of the body image construct and to identify subtle difficulties which girls may have with their body image:

* A distinction could be made between body image dimensions such as public body-consciousness, body-competence and private body-consciousness (Kelson et al. 1990:282).

* Body parts could be assessed separately.

* Various physical self-perceptions as distinguished by Fox & Corbin (cited by Caruso & Gill 1992:417) could be assessed separately, namely sports competence, physical strength, physical condition, body attractiveness, and overall physical self-worth.

Provision should also be made for differences regarding the attitudes towards body image between various cultural groups as well as their perception thereof. This also applies to sport participation and social involvement.

The various age groups (between 12 and 19 years of age) could be assessed separately in order to account for differences in academic achievement in the various standards, differences in the physical development of adolescent girls, in their perception of these various issues (for example body image satisfaction) and in their level of maturation. Psychological problems related to the body image may be different for early and slow maturers.
The importance and influence of peer group pressure, especially at the stage of adolescence, has already been mentioned. Jensen (1985:48) indicates that "society, to be successful, should seriously and carefully look at the power, the strength, and the source of the youth culture". The value which the peer group places on academic achievement and its influence on the attitude and behaviour of the individual is an issue worth investigating.

Although body image has been considered a female issue in this study, a comparison between adolescent males and females regarding the issues addressed in this study could produce interesting results.

As a positive correlation has been found between social involvement and sport participation, it could be useful to look at the relationship between social involvement and academic achievement and sport participation and academic achievement.
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APPENDIX A

SURNAME: .................................. NAME: ..................................

DATE OF BIRTH: ...................... HOME LANGUAGE: .............

STANDARD: ............................ TODAY'S DATE: ..................

INSTRUCTIONS:
The statements in this inventory are to help you describe yourself as you see yourself. Please respond to them as if you were describing yourself to yourself. Do not omit any item! Read each statement carefully; then select one of the five responses listed below. In the square next to each question, fill in the number of your response. If you want to change an answer, erase it completely and then fill in the response you want.

Responses:

<table>
<thead>
<tr>
<th>Completely true</th>
<th>Mostly true</th>
<th>Partly true, partly false</th>
<th>Mostly false</th>
<th>Completely false</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

1. I have a healthy body ........................................
2. I am a physically attractive person ......................
3. I consider myself a sloppy person ........................
4. I like to look nice and neat all the time ............
5. I am full of aches and pains ............................
6. I am a sick person ...........................................
7. I am neither too fat nor too thin .......................
8. I like my looks just the way they are ..................
9. I would like to change some parts of my body ........
10. I am neither too tall nor too short ....................
11. I don't feel as well as I should .......................
12. I should have more sex appeal ..........................
13. I take good care of myself physically

14. I try to be careful about my appearance

15. I am often clumsy and unco-ordinated

16. I feel good most of the time

17. I do poorly in sports and games

18. I am a poor sleeper
APPENDIX B

VAN: ..................................  NAAM: ............................

GEBOORTEDATUM: .......................... HUISTAAL:..................

STANDERD: ............................... DATUM:........................

AANWYSINGS:
Die stellings in hierdie vraelys help jou om jouself te beskryf soos wat jy jouself sien. Reageer daarop asof jy jouself aan jouself beskryf. Moenie enige vrae uitlaat nie! Lees elke vraag noukeurig; kies dan een van die vyf antwoorde hieronder. Dui dan die nommer van jou antwoord in die blokkie langs die vraag aan. Indien jy 'n antwoord wat jy reeds gemerk het, wil verander, vee dit deeglik uit en dui die antwoord van jou keuse aan.

Antwoorde:

<table>
<thead>
<tr>
<th>Geheel en al waar</th>
<th>Meesal waar</th>
<th>Soms waar, soms onwaar</th>
<th>Meesal onwaar</th>
<th>Volkome onwaar</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

1. Ek het 'n gesonde liggaam .......................... 
2. Ek is 'n fisies aantreklike persoon .................
3. Ek beskou myself as 'n slordige persoon .......
4. Ek hou daarvan om altyd mooi en netjies te lyk
5. Ek het baie kwale en pyne ..........................
6. Ek is 'n sieklike persoon ..........................
7. Ek is nie te maer nie en ook nie te vet nie ....
8. Ek hou van my voorkoms soos dit is ............
9. Ek sal graag sekere dele van my liggaam wil verander .............................................
<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>Ek is nie te lank nie en ook nie te kort nie</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Ek voel nie so goed soos ek behoort te voel nie</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Ek behoort meer aantreklik vir seuns te wees</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Ek versorg myself liggaamlik goed</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Ek probeer op my voorkoms let</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Ek tree dikwels lomp op</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Ek voel die meeste van die tyd goed</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Ek doen swak in sport en ander spele</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Ek slaap sleg</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C

SURNAME: .................................. NAME: .................................

DATE OF BIRTH: ............................ HOME LANGUAGE: ............

STANDARD: ................................. TODAY'S DATE: ...............

INSTRUCTIONS:

1. Choose from the list below that statement which best describes your social
   life (Tick the appropriate block):
   a always social
   b often social
   c sometimes social
   d seldom social
   e never social

2. Do you make friends easily?
   a always
   b often
   c sometimes
   d seldom
   e never

3. How do you normally spend breaktimes at school? (Tick the appropriate
   block)
   a amongst a whole group of pupils
   b with a number of friends
   c with my best friend
   d on my own, because I prefer to
   e on my own, because I have no friends
4. How often do you attend school socials (dances/sokkies):
   a always
   b often
   c sometimes
   d seldom
   e never

5. Tick the statement which describes you best:
   a I am happiest when I am in a group
   b I prefer to be in a group
   c I like groups and being on my own
   d I prefer being on my own
   e I am happiest when I am on my own

6. How often do you go up to strangers and start a conversation?
   a always
   b often
   c sometimes
   d seldom
   e never

7. When you are invited to a party, do you normally ...
   a go with a group of friends
   b go with a friend/your best friend
   c go on your own
   d stay at home, because you don't like parties
   e stay at home, because you feel "left out"

8. Do you voluntarily take part in a school activity such as a concert, play or
   rag?
   a always
   b often
   c sometimes
9. How often do you have close relationships with boys?
   - a always
   - b often
   - c sometimes
   - d seldom
   - e never

10. How popular are you with girls?
    - a very popular
    - b popular
    - c average
    - d unpopular
    - e very unpopular

11. How often do you participate in school sport?
    - a always
    - b often
    - c sometimes
    - d seldom
    - e never

12. How important do you regard your participation in school sport?
    - a very important
    - b important
    - c ambivalent
    - d not important
    - e not at all important
13. What is the primary motivation for your participation or non-participation in school sport:

- I like sport very much
- I regard sport as a very important aspect of education
- I take part in sport in order to live a balanced life
- I take part in sport because I am expected to
- I do not take part in sport because I do not like it at all
- Other (please specify) ................................ .

14. How often do you participate in physical exercise programmes other than school sport? (e.g. aerobic classes, karate, judo, etc)

- always
- often
- sometimes
- seldom
- never

15. If you have a choice regarding the size of the group in which you practice sport or exercise, will you prefer:

- large groups
- medium size groups
- small groups
- one other person
- doing it individually

16. If you have to participate in sport in a group, will you prefer:

- a group consisting of boys and girls of any age
- a group of boys and girls your age
- a group of girls of any age
- a group of girls your age
- other (please specify) ................................ .
17. How important do you regard a physical training programme offered during school hours?

- **a** very important
- **b** important
- **c** ambivalent
- **d** not important
- **e** not at all important

18. How important do you regard participation in an exercise programme as you grow older?

- **a** very important
- **b** important
- **c** ambivalent
- **d** not important
- **e** not at all important
APPENDIX D

VAN: ........................................ NAAM: ........................................

GEBORTEDATUM: .................. HUISTAAL: ..................

STANDERD: .................. DATUM: ..................

1. Kies uit die onderstaande lys daardie stelling wat jou sosiale lewe die beste beskryf:
   a gereeld sosiaal
   b dikwels sosiaal
   c soms sosiaal
   d selde sosiaal
   e nooit sosiaal

2. Maak jy maklik vriende?
   a gereeld
   b dikwels
   c soms
   d selde
   e nooit

3. Hoe bring jy gewoonlik pouses deur? (Merk die toepaslike blokkie)
   a saam met 'n hele groep leerlinge
   b saam met 'n aantal vriende
   c saam met my beste vriend/vriendin
   d alleen/op my eie, omdat ek dit so verkies
   e alleen, omdat ek geen vriende het nie
4. Hoe dikwels woon jy skoolsookies/skooldanse by?
   a) gereeld
   b) dikwels
   c) soms
   d) selde
   e) nooit

5. Merk die stelling wat jou die beste beskryf:
   a) Ek is op my gelukkigste in 'n groep
   b) Ek verkies om in 'n groep te wees
   c) Ek hou van groepe, sowel as om alleen te wees
   d) Ek verkies om alleen te wees
   e) Ek is op my gelukkigste wanneer ek alleen is

6. Hoe dikwels sal jy onbekendes nader en 'n gesprek aanknoop?
   a) gereeld
   b) dikwels
   c) soms
   d) selde
   e) nooit

7. Wanneer jy 'n uitnodiging na 'n partytjie ontvang, sal jy gewoonlik ...
   a) saam met 'n groep vriende gaan
   b) saam met 'n vriend/vriendin gaan
   c) op jou eie gaan/alleen gaan
   d) tuis bly omdat jy nie van partytjies hou nie
   e) tuis bly omdat jy "uitgesluit" voel

8. Sal jy vrywillig aan 'n skoolaktiwiteit soos 'n koncert, opvoering of jool deelneem?
   a) gereeld
   b) dikwels
   c) soms
9. Hoe dikwels het jy vaste verhoudings met seuns?
   a) altyd
   b) dikwels
   c) soms
   d) selde
   e) nooit

10. Hoe gewild is jy onder dogters?
    a) baie gewild
    b) gewild
    c) gemiddeld
    d) ongewild
    e) baie ongewild

11. Hoe dikwels neem jy aan skoolsport deel?
    a) gereelde
    b) dikwels
    c) soms
    d) selde
    e) nooit

12. Hoe belangrik is deelname aan skoolsport vir jou?
    a) baie belangrik
    b) belangrik
    c) dis vir my om't ewe
    d) nie belangrik nie
    e) geensins belangrik nie
13. Wat is die eintlike motivering vir jou deelname of nie-deelname aan skoolsport?

- a. Ek hou baie van sport
- b. Sport is vir my 'n belangrike aspek van opvoeding
- c. Ek neem aan sport deel om gebalanseerd te lewe
- d. Ek neem aan sport deel omdat dit van my verwag word
- e. Ek neem nie aan sport deel nie omdat ek nie daarvan hou nie
- f. Ander (Spesifiseer asseblief)

14. Hoe dikwels neem jy deel aan liggaamlike oefenprogramme, skoolsport uitgesluit?

- a. gereeld
- b. dikwels
- c. soms
- d. selde
- e. nooit

15. As jy die grootte van die groep waarin jy aan sport of 'n oefenprogram deelneem, kan kies, wat sal jou keuse wees?

- a. 'n groot groep
- b. 'n medium grootte groep
- c. 'n klein groepie
- d. een ander persoon
- e. individueel

16. As jy in 'n groep aan sport moes deelneem, wat sal jy verkies?

- a. 'n groep wat bestaan uit dogters en seuns van enige ouderdom
- b. 'n groep dogters en seuns van jou eie ouderdom
- c. 'n groep dogters van enige ouderdom
- d. 'n groep dogters van jou eie ouderdom
- e. ander (spesifiseer asseblief)
17. Hoe belangrik is 'n liggaamsoefeningprogram, wat gedurende skoolure aangebied word, vir jou?

   a. baie belangrik
   b. belangrik
   c. om't ewe
   d. nie belangrik nie
   e. glad nie belangrik nie

18. Hoe belangrik beskou jy dit om met 'n oefenprogram vol te hou soos wat jy ouer word?

   a. baie belangrik
   b. belangrik
   c. om't ewe
   d. nie belangrik nie
   e. glad nie belangrik nie