

THE EFFECT OF INFLAMMATORY BOWEL DISEASE AND  
GROWTH RETARDATION ON THE SELF-IMAGE OF  
ADOLESCENTS

By

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## ABSTRACT

The Effect of Inflammatory Bowel Disease and Growth Retardation  
on the Self-Image of Adolescents

This study was undertaken to determine the effect of inflammatory bowel disease (IBD), in general, and one of its manifestations, growth retardation, in particular, on the self-image of adolescents. The conceptualization of adolescent self-image as described by D. Offer (1981) was the basis for the study's framework. The psychological, social, sexual, familial and coping selves, further classified into 11 separate content areas, comprised the adolescent self-image.

A descriptive-comparative design was used to describe the self-image of adolescents with IBD and to compare the similarities and differences in self-image among the IBD adolescents with and without growth retardation and their healthy peers. A convenience sampling method was used to obtain 24 IBD subjects between the ages of 12 and 20, eleven of whom had growth retardation. A normative sample of adolescents (N = 1385) was used by permission of D. Offer for purposes of comparison with the IBD subjects. Data were gathered using the Offer Self-Image Questionnaire for adolescents.

The adolescents with IBD did not differ remarkably from the norm in their perceptions of self although a tendency among the females to have concerns about their body image and sexual maturation was demonstrated. The IBD subgroup without growth retardation reported self-image perceptions that were superior to the norm and the growth retarded subgroup in almost every category. The IBD subgroup with growth retardation reported a disturbed self-image in a number of areas. The males revealed disturbances primarily in body image and secondarily in emotional harmony, and adaptability to stress in the immediate environment, family relations, and sexual maturation. The females revealed self-image disturbances in sexual maturation and body image.

The findings of the study suggest that growth retardation in the IBD adolescent may have a negative effect on self-image. The findings may demonstrate a more notable and broader effect of growth retardation on self-image in the males with IBD than in the females.

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## CHAPTER ONE

### Context of the Problem

#### Rationale for the Study

Inflammatory bowel disease (IBD) is a chronic condition of unknown etiology that influences the physical and psychological well-being of those who contract the disease. IBD can have devastating effects for some children who develop growth retardation and/or delayed development of secondary sexual characteristics (DDSSC) as manifestations of IBD. As these children reach the maturational stage of adolescence, having to live with a chronic illness and the presence of delayed physical and/or sexual development may have a significant effect on their perceptions of themselves. Therefore, the investigator has undertaken this study to determine the effect primarily of IBD and growth retardation on the self-image of adolescents.

Offer, Ostrov and Howard define the self as the sum total of perceptions, thoughts, and feelings held by a person in reference to himself (1981a, p. 24). The self-image has been described as a self-portrait, the person one sees, thinks and feels oneself to be (Offer et al., 1981a, p. 12, 14, 32, 129).

Adolescence is considered a critical life period with respect to the development of the self (Offer et al., 1981a, p. 24). The formation

of the adolescent's self-image is significantly influenced by the dramatic biopsychosocial changes characteristic of this developmental life period. Adolescents are faced with achieving the often difficult developmental tasks expected of them during this period (Felice & Friedman, 1982; Havighurst, 1974; Houk, 1980; Offer et al., 1981a; Strax & Wolfson, 1984). Biopsychosocial changes and the success or failure in achieving the adolescent developmental tasks help to determine the self-image of the adolescent. However, the investigator was primarily interested in examining how adolescents experiencing an additional factor in their lives, namely chronic illness, see, think and feel about themselves. It is believed that these self-perceptions are indicators of the level of the adolescent's psychological adjustment (Offer et al., 1981a).

Body image, how an individual perceives his or her body, is one component of the overall self-image (Offer et al., 1981a). Perceptions of body image can lead to specific psychosocial problems in the chronically ill adolescent (Leichtman & Friedman, 1975). Therefore, the investigator was also interested in examining the effect of specific factors affecting body image such as growth retardation, on the overall self-image of the chronically ill adolescent.

Inflammatory bowel disease (IBD), which designates the conditions ulcerative colitis and Crohn's disease, is recognized as a major cause of chronic intestinal disease among adolescents in North America and other Western cultures (Johnson, Hughes, McDermott, Polglase & Pihl,

1982; Rankin, 1981; Sparacino, 1984). Davidson (1984) believes that a fifth to a third of all IBD patients range in age from 0 - 18 years and that up to 8 new cases of IBD per 100,000 people are diagnosed yearly in British Columbia. Specific IBD incidence figures for adolescents are not available. Based on the literature and the investigator's clinical experience, a notable number of adolescents with IBD experience ongoing remissions and exacerbations, debilitating symptoms, multiple hospitalizations and/or surgeries. Consequently, these adolescents must cope with not only the normal biopsychosocial changes associated with this maturational life stage, but also with the recurrent disruptions in lifestyle, in peer and family relationships and in education and career development.

Growth retardation and/or delayed development of secondary sexual characteristics (DDSSC) are specific manifestations of childhood onset IBD, experienced by a considerable number of these adolescents (Fonkalsrud, 1981; Grand, 1980; Oryboski & Hillemeier, 1980; Rosenthal, Snyder, Hendricks & Walker, 1983). These developments may potentially lead to unsatisfactory body image perceptions among individuals within this population.

The disease process of IBD conceivably can cause extensive disruptions in the daily life of an individual. Living with this disease and some of its specific disease-related manifestations, such as growth retardation, may have a significant effect on the self-image and therefore the level of psychological adjustment of these adolescents.



### Statement of the Problem

The characteristics of the disease processes of IBD in adolescents may result in significant disruptions in lifestyle, social and family relationships and in education and career development that may affect individuals' perceptions of self-image. Concerns about body image may be even greater among IBD adolescents who also have growth retardation, a manifestation of IBD. These postulations led the investigator to question the effect of IBD and growth retardation on the self-image of adolescents.

### Purposes

The purposes of this study were:

1. to describe the self-image of adolescents with IBD;
2. to compare the self-image of adolescents with IBD to normative self-image values of their healthy peers; and
3. to compare the self-image of adolescents with IBD who have growth retardation and/or DDSSC to:
  - a) self-image values of their peers with IBD who do not have growth retardation and/or DDSSC;
  - b) normative self-image values of their healthy peers.

### Definition of Terms

Self-image: the sum total of perceptions, thoughts and feelings held by a person in reference to him/herself. The total self was represented by the psychological, familial, social, sexual and coping selves (Offer et al., 1981a, p. 24). Self-image was

measured by the Offer Self-Image Questionnaire for adolescents (OSIQ - Appendix C).

Adolescent: a person between the ages of 12 and 20.

Inflammatory Bowel Disease: a term designating both Crohn's disease and ulcerative colitis.

Normative Adolescent Sample: Offer et al.'s (1981a) random sample of adolescents from the Chicago, Minnesota and Vermont areas with no known physical or mental illnesses studied in the late 1970s. The adolescents were primarily lower middle-class to upper middle-class urban, suburban and rural youths.

Growth Retardation: measures of height and/or bone age considered to indicate significantly lower than normal growth for age, that is, a height measure equal to or less than the tenth (10th) percentile for age according to the standardized height charts used by the physicians at B. C. Children's Hospital, and a bone age (Greulich & Pyle, 1959) which is at least one or more years younger than the subject's chronological age.

Delayed Development of Secondary Sexual Characteristics: failure to achieve the appropriate pubertal stage for age group according to J.M. Tanner's stages of growth in adolescence (Tanner, 1955). These data were required to be explicitly indicated in the physician's notes on the patient's chart. If there was no recent notation of DDSSC on the subject's medical record, the presence of DDSSC in the subject at the time of the study required verification by the physician at the B.C. Children's Hospital for this data to be incorporated into the study.

### Assumptions

1. Adolescence is a critical period with respect to the development of the self. How one sees, thinks and feels oneself to be, that is, one's self-image, is considered to be a major determinant and valid indicator of one's psychological adjustment.
2. The self-image is multidimensional. The adolescent may master one aspect of his psychological world while failing to adjust in another, therefore, it is necessary to evaluate functioning in multiple areas.
3. Adolescents are sufficiently psychologically aware and sensitive to provide valid self-portraits. Empirical work with the OSIQ has supported "that what normal adolescents consciously know and report about themselves is much more salient than what they are motivated not to know or report .... it is not (a conclusion that is) required by a theory of self" (Offer et al., 1981a, p. 25; Offer, Ostrov, & Howard, 1984b).

### Limitations

1. Wylie (1974) discussed the multidimensional nature of the self-concept. The use of a structured self-image questionnaire approach to the study of self-image forced subjects to respond to a given set of items and no others. These items were weighted according to an a priori scale. In theory, the structured test format could have omitted items that were, for

any given respondent, the most meaningful aspects of his or her self-image.

2. The findings generated by the study were limited in terms of generalizability due to the potentially small sample of adolescents with IBD available and the non-random sampling method used to select study participants. As a result, certain confounding factors were not controlled for in the study. The participants in the IBD sample were not equally distributed for age, gender, type of IBD, presence of ileostomy/colostomy, past history of bowel surgery and severity of illness at the time of participation in the study. Therefore, the IBD subgroups were not matched for the confounding factors listed above.

#### Ethics and Human Rights

The subjects' rights were protected by:

1. requests for permission to conduct the study from the appropriate authorities of the hospital in question, the attending physicians of the subjects with IBD, the family physicians of the subjects, the parents of the subjects, where applicable, and the subjects themselves, in the form of explanatory letters and/or consent forms outlining the purpose, benefits and risks of the study (Appendix B)
2. the procedure used for obtaining names of potential research subjects from the clinical nurse specialist in the department of gastroenterology at the B.C. Children's Hospital. This

individual was given permission by the subjects and/or physicians to release names, addresses and phone numbers to the researcher

3. the coding and classifying of data generated by the questionnaires according to the responses, only, and by the withholding of actual names of subjects
4. the destruction of the questionnaires once the data had been analyzed
5. the procedure that was followed in informing the subjects that they may ask any questions regarding the study or questionnaire and may refuse to answer questions and continue to participate in the study. They were also informed that they may withdraw from the study at any time without it affecting their present or future health care.

### Significance

A notable number of adolescents with IBD experience the ongoing remissions and exacerbations, debilitating symptoms, multiple hospitalizations and/or surgeries often characteristic of IBD conditions. The disruptions caused by these experiences may considerably affect how these adolescents see, think and feel about themselves - their self-image. Self-image is considered a major determinant of the psychological adjustment of the individual.

It is important for nurses and other professionals as well as family members, who are in regular and/or daily contact with these

adolescents, to understand how they see, think and feel about themselves. It is believed that this study's findings will enrich their knowledge and understanding of this adolescent population. Hospital and community health nurses, social workers, physicians, psychologists, parents, teachers, hospital tutors and counsellors may all utilize this new found knowledge and insight to know, importantly, if, when and where to gear their health teaching, counselling, support and encouragement or simply their empathy.

## CHAPTER TWO

### Review of the Relevant Literature

#### Overview

The examination and analysis of the theoretical literature and past research included literature related to: adolescent self-image, the effect of chronic physical illness on adolescent self-image and the effect of growth retardation and/or delayed development of secondary sexual characteristics (DDSSC) in adolescents on self-image. The literature search also included theoretical writings and research related to the conceptualization of adolescent self-image based on the work of Daniel Offer (1969), Daniel Offer and Kenneth I. Howard (1972) and Daniel Offer, Eric Ostrov and Kenneth I. Howard (1981a, 1982a, 1984a).

#### The Adolescent Self-Image

Adolescence is a maturational life period characterized by relatively rapid and dramatic physical, psychological and social growth and development (Felice & Friedman, 1982; Offer et al., 1981a). It is a critical period with respect to the development of the self-image, "the sum total of perceptions, thoughts and feelings held by a person in reference to himself" (Offer et al., 1981a, p. 24). Success or failure in adjusting to the biopsychosocial changes characteristic of adolescence is believed to influence the adolescent's self-image (Houk, 1980). The self-image is considered to be one of the main determinants

of an individual's behavior and level of adjustment and in particular a determinant of an adolescent's level of psychological adjustment to his or her world (Offer, Ostrov & Howard, 1981b; Sparacino, 1984).

The terms self-image and self-concept are used interchangeably in the literature. The self-concept is considered to be a multidimensional concept (Wylie, 1974). For this reason, researchers have examined the self-image or self-concept from their own particular perspectives, commonly exploring only selected dimensions of this concept (Dusek & Flaherty, 1981; Newman & Newman, 1979).

In 1968, Simmons, Rosenberg and Rosenberg (1973) investigated the self-image of 1,917 American children from grades 3 to 12. The sample was 63% Negro and more predominantly working class than the national average. The dimensions of the phenomenal self (the individual as known to the individual) measured were self-consciousness, stability, self-esteem and "perceived self". Indices were developed by the authors to measure the four aspects of the self-image noted and were presented in their appendix. Self-consciousness was measured by a seven-item Guttman Scale and stability of self by a five-item Guttman Scale, examples of which are presented in their article. Global and specific indices were designed to measure general self-esteem, and examples of the indices used were provided in their publication of the study. The "perceived self" was measured by the investigators asking their subjects what they believed selected individuals thought of them. The findings demonstrated that the younger adolescents (ages 12-14) when compared to



the 8-11 year olds, exhibited increased self-consciousness, greater instability of self-image, somewhat lower self-esteem, lower opinions of themselves with respect to the attributes they valued and a lessened conviction that peers of the same sex, parents and teachers held commendatory opinions of them. The investigators also found that the extent of "disturbance" in self-image evident among the younger adolescents was not evident in the older adolescent group. According to the authors of this study the term disturbance in self-image was not meant to imply psychopathology but to indicate a mild distress state.

In the 1960s, the late 1970s and 1980, Offer, either working alone or with Ostrov and/or Howard, developed and used the Offer Self-Image Questionnaire (OSIQ) for adolescents to gather "information about the phenomenal self of teenagers", that is, the adolescents' subjective perceptions, thoughts and feelings about themselves (Offer et al., 1981a, p. 31). The OSIQ assesses 11 separate content areas of the adolescent self-image represented by the following 11 subscales: impulse control, emotional tone, body and self image, social relationships, morals, vocational and educational goals, sexual attitudes, family relationships, mastery of the external world, psychopathology and superior adjustment (Offer et al., 1982a).

Offer, Ostrov and Howard, studied "normal" teenagers, normal referring to the "attitudes and self-conceptions of a random group of adolescents, not necessarily to psychological health", as well as "deviant" teenage populations (e.g. the physically, emotionally, and

mentally ill, the gifted, the delinquent) (1981a, p. 35). Data collected from the "normal" teens studied in the late 1970s (N=1385), a predominantly middle-class, urban, suburban and rural group, served as the investigators' standardized normative data for all the groups studied (Offer et al., 1981a, p. 33-35).

Overall data for the "normal" groups investigated from 1960 to 1980 revealed that the vast majority of these adolescents, though they came from different cultural and racial backgrounds and time periods, did not perceive themselves as characteristically existing in a state of turmoil during this maturational period. They saw themselves as adapting to their rapid physical development and emerging sexuality without great conflict, as enjoying good interpersonal relationships with friends and family and as accepting the values of and functioning well within their societies (Offer et al., 1981a, p. 116). Age differences among the samples did not reveal differences in self-image, but gender differences did. The data demonstrated that girls "felt worse about their bodies, less open to sexual feelings, and less confident about vocational aspirations" than did boys (Offer et al., 1981a, p. 117). With respect to morality and affiliation, the girls exhibited more positive attitudes than the boys. These findings were attributed to the influence of Western society's traditional sex roles. This normal sample of teens also commonly exhibited a "situation-specific anxiety" that the investigators felt was easily handled by the adolescents (Offer et al., 1981a, p. 117).

Dusek and Flaherty (1981) conducted a three year longitudinal study with students in grades 5 to 12. Numbers of subjects that participated in the study were not provided. The students were asked to rate themselves on the concept "my characteristic self" (myself as I most often feel about myself). Twenty-one bipolar adjective pairs comprised this concept. Analysis of data revealed that the adolescent self-concept developed in a continuous and stable way. Data also revealed that there were differences in self-concept according to gender, consistent with stereotypical gender roles. In addition, according to their data, the investigators contended that adolescence is not commonly a period of storm and stress, identity crisis, and disruption or significant alteration in self-concept (1981, p. 33).

#### The Effect of Chronic Physical Illness On Adolescent Self-Image

It has been suggested that the nature of chronic illness during the period of adolescence can effect psychological changes and/or stresses such as altered self-concept and body image, anxiety, uncertainty about future goals, dependency and doubts about future self-sufficiency and doubts about the ability to assume the role of parent (Houk, 1980; Kellerman, Zeltzer, Ellenberg, Dash & Rigler, 1980; Sparacino, 1984). These changes, stresses and/or limitations are therefore believed to have the potential to threaten, disrupt or prevent the accomplishment of adolescent developmental tasks thought to be essential for healthy psychological adjustment (Brown, 1982; Leichtman & Friedman, 1975; Sparacino, 1984). In addition, success or failure in accomplishing the

developmental tasks is believed to affect the self-image. The self-image is considered a major determinant of the level of psychological adjustment (Offer et al., 1981a).

A significant correlation has been found between the self-image and adolescent mental health and adjustment, physical health, personality development, family relations, coping abilities, interpersonal relationships and mood (Offer et al., 1981a). Nelson also suggests that chronic illness and the dependence it often creates may "severely delay or compromise the process of self-image development in the adolescent" (1984, p. 4).

Pless and Roghmann (1971) examined three previously conducted epidemiologic surveys of children aged 18 years and under (N=913) with mildly to moderately disabling chronic illnesses (asthma, epilepsy and cerebral palsy). The surveys were conducted in the U.K. and U.S.A. in 1958, 1964 and 1970. Though the impact of chronic illness specifically on the self-image was not examined in the surveys, the examination of the surveys revealed an excess rate of "psychosocial handicaps" in the areas of educational achievement, behavior and psychologic adjustment among the children with chronic illnesses (p. 355). Pless and Roghmann suggest that these findings likely were more attributable to the chronic illness than to any other variables. Pless (1984) later reviewed other studies examining the physical and psychological functioning of chronically ill children and adolescents. This review revealed that most of these studies concluded that individuals with chronic physical

disorders have an increased risk of experiencing a significant psychological or social problem during childhood when compared with their healthy peers.

Tavormina, Kastner, Slater and Watt (1976) assessed the psychosocial functioning levels of a number of chronically ill children (N=144) ranging from 5 to 19 years of age and having diabetes, asthma, cystic fibrosis or hearing impairment. Several instruments were used for the assessment, one of them being the Piers-Harris Self-Concept Scale. The children's "self-attitudes" regarding intellectual and school status, behavior, physical attributes and appearance, popularity, anxiety, and satisfaction and happiness, were rated (1976, p. 102). The sample, with the exception of the hearing-impaired children, scored significantly higher than the standardized normative group for the total self-concept score. Though the individuals in the sample were considered to be "realistically different" than normals, the investigators believed that the overall results of the study demonstrated the normality rather than the deviance and demonstrated the strength and coping abilities rather than the weaknesses of these children (1976, p. 109).

Kellerman et al. (1980) conducted the first large scale study of the psychological effects of physical illness specifically in the adolescent population, although multiple dimensions of the self-image were not assessed. The investigators compared 349 healthy adolescents with 168 adolescents (mean age 15.2) who had various chronic or serious

illnesses (leukemia, solid malignant tumors, cardiologic, nephrologic and rheumatologic disorders, diabetes and cystic fibrosis). The groups were compared on standardized measures of trait anxiety, self-esteem and perception of self-control over health and illness. They found that this sample of adolescents was comparatively psychologically normal in terms of the self-esteem and trait anxiety measures used. The adolescents' attitudes regarding control over their health and illness were assessed as reflecting realistic perceptions on their part. The investigators concluded that chronic illness in the adolescent does not inevitably lead to psychopathology.

Zeltzer, Kellerman, Ellenberg, Dash and Rigler (1980) compared healthy and chronically physically ill adolescents' perceptions of the influence of illness on body image, autonomy, relations with peers, family interaction, sexuality, future orientation and education, using the same sample as did Kellerman et al. (1980). The researchers designed an illness-impact questionnaire addressing specific health concerns of adolescents in relation to the aforementioned developmental issues studied. The healthy and chronically ill adolescents agreed that the restriction of freedom was the major disruption in their lives effected by illness, followed by disruption in relations with peers, siblings and parents. The findings suggested that the chronically ill adolescents investigated were essentially psychologically healthy and supported the resiliency and coping skills of these adolescents.

Studies investigating the relationship directly between the multidimensional self-image of adolescents and chronic or serious physical illness are sparse. A study conducted by Crozier (1982) compared primarily the body images of healthy adolescents, adolescents with ulcerative colitis and adolescents with ileostomies who had had ulcerative colitis. There were twenty subjects in each group between the ages of 12 and 20. The Secord and Jourard's Body and Self Cathexis questionnaire used in this study did not reveal differences among the groups' perceptions of their body images. On the other hand, qualitative data obtained from personal interviews indicated that the impact of ulcerative colitis on body image was both positive and negative. Subjects who had ileostomies were found to be equivalent to their healthy peers in every way except for a lesser involvement in certain extracurricular and social activities such as sports and dating. In addition, these adolescents demonstrated a healthier sense of body image than those with ulcerative colitis who did not have surgery. Whether this finding among those who had not had the surgery is attributable to an aspect of the treatment such as corticosteroid therapy, to the course of the disease itself or to other determinants is not known.

Offer et al. (1984a) examined formerly researched studies investigating the self-images of groups of physically ill adolescents with asthma, leukemia, Hodgkin's disease and cystic fibrosis. They compared the self-images of these adolescents with their own normative

data. The results indicated that the asthmatic and cancer groups had comparatively normal self-images whereas those with cystic fibrosis exhibited disturbed self-images. The authors claim that if these adolescents were disturbed it was not likely because of the physical illness but was in addition to the illness. They speculate that if there was a social stigma attached to a particular physical illness and the stigma was visible, the self-image would be impaired. They suggest that the more visible the stigma, the greater would be the impairment of self-image.

#### The Effect of Growth Retardation and/or DDSSC in Adolescents On Self-Image

It has been suggested that no upset during puberty is of greater personal importance or disturbance to the adolescent than for him or her to continue to be abnormally short in stature and/or delayed in the development of secondary sexual characteristics while his or her peers are growing and developing at normal rates. These adolescents commonly experience anxiety and depression as a result of delays in growth and development and damage to the self-image as a consequence of these delays is implied (Barnes, 1975).

A significant number of adolescents with IBD exhibit at least some degree of growth retardation and/or DDSSC. Fifteen to 30% of adolescents and children with Crohn's disease and 5 to 10% of those with ulcerative colitis are below the third percentile in height for their age (Rosenthal, et al., 1983). Separate figures for adolescents are not



available. It is believed that short stature and/or DDSSC may result in serious problems in the achievement of developmental tasks and therefore with self-image development and normal psychological development in the adolescent (Daniel, 1975; Rankin, 1981; Rosenthal, et al., 1983). No studies have been found in the literature investigating overall or specific aspects of self-image of adolescents with IBD, with or without growth retardation and/or DDSSC.

Landon, Rosenfeld, Northcraft and Lewiston (1980) administered the OSIQ to three groups of adolescents with mean height less than the fifth percentile for age: cystic fibrosis (CF) males aged 12-19 (N=16), CF females aged 12-19 (N=8) and otherwise healthy males with short stature and/or delayed puberty aged 13-19 (N=34). The otherwise healthy males with short stature were the control group used to study the effects of CF on the psychological adjustment of the adolescents with CF.

The findings of Landon et al.'s (1980) study were also compared to published normative data and to data from adolescents being treated for emotional disorders. The otherwise healthy teenagers with short stature and/or DDSSC reported a high frequency of scholastic, social and emotional disturbances. The results revealed that the CF males reported self-images that were as disturbed as a) the pubertally delayed but otherwise healthy males' and b) the emotionally disturbed sample's self-images. The female CF group reported self-images that were equivalent to the normative sample's. The investigators interpreted the findings to suggest that the self-image disturbance of the CF males may

be more related to the stigma of short stature and/or DDSSC, a stigma more easily disguised in the female, than to the presence of CF.

### Summary

The literature related to adolescence emphasized the importance of the development of a positive self-image during this maturational life stage. Investigators, who have examined the self-images of "normal" child and teenage samples and the effects of chronic physical illness on the self-images of children and adolescents, have commonly explored only selected dimensions of the multidimensional nature of the concept of self-image. Offer et al. (1981a) examined the self-images of a large number of normal adolescents and smaller numbers of physically ill adolescents, using 11 separate content areas representing the adolescent self, to measure the self-image in a comprehensive manner. Most authors or researchers theorized or found that adolescence was not a period in which the individual commonly experienced disruption or significant alteration in the self-image but that self-image developed in a continuous and stable way. Other authors theorized that chronic illness and the dependence it often creates may negatively affect the development of self-image in the adolescent. Some researchers found a significant correlation between the self-image and adolescent physical and mental health and achievement of the developmental tasks expected of adolescents. Yet, other researchers discovered that adolescents with chronic or serious illnesses reported normal self-images and possessed

strengths and positive coping abilities in the face of living with chronic illness.

Some theorists speculate that growth retardation and/or DDSSC in adolescents may result in serious difficulties in their expected achievement of developmental tasks thereby potentially negatively affecting their self-images. Some researchers indicate that their findings suggest that growth retardation and/or DDSSC in the healthy and chronically ill adolescent may lead to self-image disturbances. The study of IBD adolescent patients, who do or do not have growth retardation and/or DDSSC, were not included in the self-image studies searched by the investigator for review of the relevant literature.

Therefore, the investigator was interested in determining a) the effect of IBD, in general, on the self-image of adolescents and b) the effect of growth retardation and/or DDSSC, specifically, on the self-image of adolescents with IBD.

#### Conceptual Framework

The conceptualization of self-image as used in this study is based on the work of Offer (1969), Offer and Howard (1972) and Offer et al. (1981a, 1982a). It is based on their theory of the "self" and on general theory of the psychological and social development of adolescents (Offer et al., 1981a, p. 11-29).

Offer et al. (1981a, 1982a) are interested in studying only the phenomenal self of the adolescent, that is, the self as the adolescent subjectively experiences and perceives him/herself to be. The authors'

concept of self, adopted by this investigator, is derived from a combination of cognitive and psychodynamic approaches to the theory of self (Offer et al., 1981a, p. 23-24). The authors consider the self to be more than an individual's cognitive representations of him/herself to him/herself because they believe it also includes feelings and wishes that are unconscious. Therefore, they describe the self as "the sum total of perceptions, thoughts and feelings a person has in reference to himself" (Offer et al., 1981a, p. 24).

On the basis of theory, clinical experience and a review of empirical findings, Offer (1969) and Offer et al. (1981a; 1982a, p. 1) have devised a self-report questionnaire that consists of 11 separate content areas representing the adolescent self-image called subscales: impulse control, emotional tone, body and self image, social relationships, morals, sexual attitudes, family relationships, mastery of the external world, vocational and educational goals, psychopathology and superior adjustment. Each subscale corresponds to an area of functioning considered important to the psychological world of the adolescent. The 11 subscales have been classified as 5 major aspects of the adolescent's self-system: the psychological self, the social self, the family self, the sexual self and the coping self (Offer et al., 1982a, p. 1). Together the 5 major aspects of the adolescent self represent the phenomenal self of the adolescent as it is defined by Offer et al. (1981a).

The conceptualization of the self, and self-image and its measurement as presented by Offer (1969), Offer and Howard (1972) and Offer et al. (1981a; 1982a) portrays a comprehensive perspective that was relevant to this study of adolescent self-image. The concepts of measurement of phenomenal self of the adolescent in 11 content areas representing the self-image and use of the self-report method to derive the data fulfilled the investigator's requirements for the study of the effects of IBD and growth retardation on the self-image of adolescents.

## CHAPTER THREE

### Methodology

#### Research Design

A descriptive-comparative design was used to identify the subjective self-perceptions of adolescents who have IBD and have or do not have growth retardation and/or DDSSC. This same research design was also employed to compare self-image data generated by the aforementioned two groups and to compare this information with normative data. The study's primary independent variables were inflammatory bowel disease (presence or absence) and growth retardation and/or delayed development of secondary sexual characteristics (presence or absence). In addition, demographic information, such as the adolescent's sex, age, presence or absence of previous bowel surgery and existing ileostomy or colostomy, was collected. The dependent variables were the 11 subscales within the Offer Self-Image Questionnaire (QSIQ) depicting 11 separate content areas of the adolescent self-image.

The participants' responses to the questions specific to each of the 11 subscales comprising the questionnaire were compared with normative data derived from the "normal" population of adolescents studied by Offer et al. (1981a). Subscale profiles of IBD

adolescents who have and do not have growth retardation and/or DDSSC were also compared.

### Sample and Setting

Potential candidates for this study were all adolescents with IBD (approximately 70-80) who were currently patients of two gastroenterologists and who attended the gastroenterology clinic at the British Columbia Children's Hospital. The lists of the physicians' patients were supplied to the investigator for selection of subjects by Anne Crozier, the clinical nurse specialist in the department, after permission was provided by the physicians. Family physicians of the potential candidates were contacted by mail prior to final selection of study participants to rule out unknown contradictions for selection (see Appendix B). Approximately a third of the potential study participants were not selected by the investigator because they failed to meet the age or capacity to respond to the questionnaire selection criteria. The final number of IBD adolescents that participated in the study was 24, 11 of whom had growth retardation. The healthy peer groups of adolescents studied by Offer et al. in the late 1970s (N = 1385) supplied the normative data required for comparisons of the chronically ill and the healthy groups (1981a; 1982a). The study participants answered the questionnaires, mailed to them, in their homes.

### Selection Criteria

The adolescents with IBD selected for this study met the following criteria. They:

1. either had or did not have growth retardation and/or DDSSC
2. were persons between the ages of 12 and 20
3. were able to read and understand English
4. were physically and mentally able to respond to the questionnaire

#### Data Collection Procedures

The investigator initially contacted the potential subjects and their parents by explanatory letters mailed together with the study questionnaire (see Appendix B and C) and adolescent and parental consent forms (applicable if the child was under sixteen years of age - see Appendix B). The explanatory letter mailed to the potential study participants provided them with the investigator's telephone number so that they were aware she was available to answer any questions they may have had about the study or questionnaire. The letter also informed the subjects that approximately 40 minutes would be required to complete the questionnaire. They were asked to respond to the questions in terms of their own thoughts and feelings about themselves, in privacy if possible, and to return the questionnaire in the self-addressed, stamped envelope supplied. The initial contact of subjects by mail was followed by a phone call three weeks thereafter to ascertain that questionnaires had been received and to answer any questions the subjects or parents may have had. The phone call was followed by postcards three to four weeks later as reminders to those subjects who had expressed an interest



in participating in the study but had not yet completed the questionnaire at the time of telephone contact.

Demographic data, supplementary to the information supplied in the brief demographic section attached to the questionnaire, were obtained from the participants' medical charts. The charts were supplied by the medical records department of the British Columbia Children's Hospital after permission to conduct the study was granted in writing by the In-Hospital Research Review Committee (see Appendix D).

#### Instrument for Data Collection

The instrument used to collect data about the self-image of adolescents with IBD was the OSIQ for adolescents, a self-report questionnaire developed by Offer et al. (1982a). It included a brief demographic section and 130 items that were used to measure adjustment in 11 content areas depicting the adolescent self-image. The 11 content areas were represented by the questionnaire's 11 subscales: impulse control, emotional tone, body and self image, social relationships, morals, vocational and educational goals, sexual attitudes, familial relationships, mastery of the external world, psychopathology and superior adjustment. The 11 subscales were further classified into five separate aspects of the adolescent self-system representing the psychological self, social self, familial self, sexual self and coping self (Offer et al., 1981a, p. 39). The 11 subscales also indirectly represented the developmental tasks of adolescence.

Since 1962 the OSIQ has been used in several studies and administered to over 20,000 adolescents around the world (Offer et al., 1984a). Questionnaire items have been added, revised or removed, continuously. The questionnaire has been shown to meaningfully discriminate between younger (ages 13-15) and older (ages 16-19) teenagers as well as between males and females (Offer et al., 1981a).

### Scoring

A Likert-type scale is used for scoring six alternative responses to each questionnaire item in the OSIQ. The responses and their numerical values range from "1. Describes me very well, to, 6. Does not describe me at all" (Offer et al., 1982a, p. 5). Half of the items in each subscale are worded positively, the other half are worded negatively. The numerical value circled for the positively worded items remain the raw score for that item. A formula for calculating the raw score of the negatively worded items is provided in the OSIQ manual (Offer et al., 1982a, p. 5)). A subject's raw score for any subscale is the sum of the circled values for the positive and calculated negative items.

In this study subscale scores for the groups investigated were not presented in raw score form. Instead, the raw scores were converted to standard scores and were expressed in standardized form with a mean of 50 and a standard deviation of 15. The standard scores were computed by subtracting a subject's raw score for a particular subscale from the mean raw score of the age - and sex - appropriate group for that

subscale. This figure was then divided by the standard deviation of raw scores for the age - and sex - appropriate group for that subscale. This figure was multiplied by 15 and 50 was added to that product. This method of scoring is called standard scoring methodology (Offer et al., 1984b). As a result, a standard score of 50 signifies a score equal to the appropriate normal reference group mean implying normal adjustment in the corresponding subscale. A score lower than 50 signifies poorer adjustment than that of normals. A score higher than 50 signifies better adjustment than that of normals (Offer et al., 1982a).

### Reliability

Internal consistency. This measure of reliability of the OSIQ has been assessed by a statistical method called alpha (Cronbach, 1970) which when applied to OSIQ data demonstrated that the questionnaire's subscales were internally consistent. The alpha coefficient for each OSIQ subscale for four different normal adolescent samples investigated from 1962 to 1969 ranged from .36 to .88, demonstrating moderately low to highly acceptable internal consistencies for the subscales (see Appendix A). Good internal consistency also was shown by intergroup differences at the item level. Examination demonstrated that, in general, inconsistent group differences among items in any one subscale were rare (Offer et al., 1981a; 1982a).

Overlap between most of the subscales has been quite high in practice, particularly in light of the size of their internal consistencies. Correlations between subscales have been high enough to

justify summing their scores to yield a total score, an overall measure of an adolescent's self-image. However, distinctions among clusters of these subscales have been ample enough to justify retaining their separate identities (Offer et al., 1981a; 1982a).

Stability. Data obtained in 1979 on two occasions, six months apart, from a sample of normal teenagers who lived in suburbs in the Chicago area demonstrated that the subscale scores are almost as stable as they are internally consistent. The stability coefficients for these data ranged from .48 to .84 for the subscales, and was .73 for the total score (Offer et al., 1981a; 1982a).

Stability of subscale scores over time also has been demonstrated by a longitudinal study conducted over an eight year period. In 1962, subjects were chosen for the longitudinal study on the basis of their average scores on at least 9 of the 11 OSIQ subscales. Eight years of follow-up research revealed that the selected subjects functioned normally in every area tested by the 11 subscales (Offer, 1969).

Interrater reliability. The use of only one rater, the subject himself, and use of an a priori scoring scheme that allows computer scoring of the questionnaires avoids the problems related to interrater agreement reliability of the questionnaire.

### Validity

Predictive validity. The previously mentioned longitudinal study of the self-images of normal adolescent boys, begun in 1962, also demonstrated predictive validity of the OSIQ. The selected subjects had

average (normative) scores in at least 9 of the 11 subscales tested. Eight years after the initial testing of these subjects the vast majority repeated the original findings revealing normal self-images (Offer, 1969).

Concurrent validity. Four studies (Coche & Taylor, 1974, p. 147-149; Dudley, Craig & Mason, 1981, p. 454, 460; Hjorth, 1980; Offer, 1969) have examined the correlation of the OSIQ with the Bell Inventory, the Minnesota Multiphasic Personality Inventory (MMPI), and the Tennessee self-image test. The results of these studies indicate that moderate to high correlations exist between these instruments and the OSIQ.

### Data Analysis

Descriptive statistics at the nominal and ordinal level were used to provide demographic profiles of the adolescent study participants with IBD. These profiles are visually displayed in Tables 1 and 2 (see Chapter 4).

Standard scoring methodology (see Scoring, Chapter 3) was used to analyze and interpret the data. To illustrate similarities and differences between the various study groups graphically, profiles for each group were drawn displaying the IBD groups' means for each OSIQ subscale in relation to the control group (normative sample) mean of 50 (see Figures 1 and 2, Appendix E).

Only summary statistics were available in this study rather than the complete list of raw or standard scores for individuals in both the

experimental and control groups that is necessary for the process of ranking to compute tests of difference, between groups. Therefore, rank-based nonparametric tests which make use only of ordinal standings of data values (as found in this study) could not be employed.

In addition, the seeking out of promising differences from summary statistics and proceeding to test these differences for significance would have resulted in "stacking the odds" in the investigator's favor. Therefore to decrease the probability of Type I Error, this kind of data analysis was not employed.

As a result, comparisons between the IBD adolescents' group means and subgroups means and those of the normal adolescents were made by the use of two-tailed t-tests. Differences at the .05 level or less were considered significant. The results of the t-tests were used as a rough guide only, in the analysis and interpretation of data, because more appropriate methods could not be used and the t-test is appropriate primarily for ratio scales. The t-tests' approximate p-values were interpreted only with some reservation and caution.

The ideal nonparametric analogue to the t-test, the Wilcoxin Rank Sum Test, was not utilized for data analysis in this study because it was unlikely this test would yield a different conclusion from the t-test, if the samples and data had not met all the assumptions necessary for appropriate use of the t-test.

Finally, to explain subscale score differences among the groups investigated in this study, participants' percent endorsements of items

were compared at the item level. A percent endorsement for a group, with respect to an item, is the percent of subjects in that group responding positively to that item. As a result, percent endorsements can range from 0 to 100 percent. Responses of 1 (describes me very well) to 3 (describes me fairly well) constitute an endorsement of the item. Responses of 4 (does not quite describe me) to 6 (does not describe me at all) represent a failure to endorse the item. A difference in percent endorsement, with respect to any given item, between a group of physically ill adolescents and a control group was considered notable by the investigator only if it exceeded ten percentage points. After comparing the standard score means and the percent endorsements of subscale-specific items of the study groups, the investigator should be able to demonstrate any existence of possible effects of IBD or growth retardation on the adolescent self-image or of possible differences between the study groups. The investigator could then discuss the possible effects of IBD or growth retardation on the adolescent self-image or of possible differences between study groups. The investigator also should inform the reader that the study would not be able to rule out the aforementioned possibilities, and should alert the reader to the potential for existence of these possibilities in practice.

Although Offer et al. (1981a, 1982a, 1984a) have compared the scores of younger and older male and female samples, the scores of

Table 1

Distribution of Older and Younger Males and Females with IBD by Groups

Gender and Age Categories	Groups		
	IBD	IBD	IBD with
	(N = 24)	without GR (n = 13)	GR (n = 11)
	<u>n</u>	<u>n</u>	<u>n</u>
Males			
13-15 years of age	5	4	1
16-19 years of age	<u>8</u>	<u>2</u>	<u>6</u>
Total	13	6	7
Females			
13-15 years of age	6	3	3
16-19 years of age	<u>5</u>	<u>4</u>	<u>1</u>
Total	11	7	4

younger and older adolescents forming the groups in this study were combined to increase the number of participants in each group. Numbers of participants would have been exceptionally small in some IBD subgroups had this not been carried out (see Table 1). In other research, Offer et al. (1981a) have shown that age generally has little effect on self-image scores. However, male and female group means and



percent endorsements of items were calculated and compared separately among the study groups. Offer et al., (1984a) have claimed that physical illness might have very different self-image effects upon boys than it does upon girls.

## CHAPTER FOUR

### Results and Discussion

#### Overview

The results of this investigation contributed to the understanding of a) the self-image of adolescents with inflammatory bowel disease (IBD) and b) the influence of growth retardation (GR) on the self-image of adolescents with IBD. The data revealed notable similarities and differences among the groups investigated with respect to perception of self. Responses to questions implied by the purposes of the study formed the basis for discussion of the study's findings. The results and their discussion are preceded by the presentation of limiting factors influencing interpretation of the findings.

The results are presented and discussed according to the following headings:

1. Description of the sample and specific sample characteristics;
2. The self-image of adolescents with IBD based upon the following 11 subscales believed to represent the adolescent self, as they are organized under the 5 major selves from the conceptual framework (Offer et al., 1981a):

- i) the psychological self (PS) including PS-1: impulse control, PS-2: emotional tone, and PS-3: body and self image;
- ii) the social self (SS) including SS-1: social relationships, SS-2: morals, and SS-3: vocational and educational goals;
- iii) the sexual self (SXS) including SXS: sexual attitudes;
- iv) the familial self (FS) including FS: family relationships;
- v) the coping self (CS) including CS-1: mastery of the external world, CS-2: psychopathology, and CS-3: superior adjustment.

3. Similarities and differences in self-image among the IBD adolescents with and without GR and their healthy peers.

The presentation of results and the discussion is organized according to the 11 Offer Self-Image Questionnaire (OSIQ) subscales as they have been grouped under the 5 major selves by Offer et al. (1981a).

The results for each of the 11 subscales are presented selectively through examination of descriptive summary statistics for four groups of adolescents: the normative sample (N=1385), those with IBD (N=24), those with IBD without growth retardation (n=13), and those with IBD with growth retardation (n=11). Similarities and differences among females and males within groups are also discussed. The summary

statistics utilized to describe and compare the participant groups' self-perceptions are the arithmetic means of the groups' standard scores for each subscale and the percent endorsements of subscale-specific items in the OSIQ. Each subscale is comprised of from 9-19 items in the OSIQ. A standard score mean of 50.00 signifies a score equal to the appropriate normal reference group mean. A score lower than 50.00 signifies poorer adjustment than that of normals while a score higher than 50.00 signifies better adjustment than that of normals in a particular subscale (Offer et al., 1982a). A percent endorsement of an item, for a group, signifies the percentage of subjects in that group responding positively to that item (Offer et al., 1984a) (see Chapter 3, p. 34). The values obtained for the study's IBD participants are compared, by permission, to normative data derived from the study of 1385 adolescents without known physical, mental or behavioral disorders (Offer et al., 1981a).

#### Limiting Factors Influencing Interpretation of Findings

As a result of the convenience sampling method used to procure sufficient study participants meeting eligibility criteria, some uneven distributions among the study's two subgroups (IBD subjects with or without growth retardation) were rendered. Although the sampling method resulted in an almost even distribution of males and females and growth retarded and non-growth retarded IBD subjects, the sizes of these subgroups were relatively small (see Table 2). In addition, the distribution of females within the IBD subgroups was relatively unequal

Table 2

Distribution of Gender, IBD Classifications and Incidence of Growth  
Retardation, Bowel Surgery and Ileostomy/Colostomy in the IBD Sample

(N = 24)

Group	Growth Retarded	Non-Growth retarded	Total
Females			
Crohn's disease	4	5	9
Ulcerative colitis	0	2	2
Unclassified IBD	0	0	0
Bowel surgery	1	2	3
Ileostomy/colostomy	0	2	2
Males			
Crohn's disease	7	2	9
Ulcerative colitis	0	3	3
Unclassified IBD	0	1	1
Bowel surgery	5	1	6
Ileostomy/colostomy	1	1	2

Note. There is a missing value each for bowel surgery and ileostomy/colostomy incidence.

(4:7) although the distribution of males was almost equal (7:6), and the number of males and females in these subgroups was small.

The method of selecting subjects also resulted in a highly uneven distribution of IBD conditions among the sample. Three-quarters of the IBD sample had Crohn's disease while one-quarter had ulcerative colitis. As a result all subjects with GR had Crohn's disease. Eight of the 9 individuals who had had bowel surgery had Crohn's disease and therefore, most were growth retarded. Of the four individuals who had ileostomies or colostomies, three had Crohn's disease. Finally, twice as many males as females had had bowel surgery (see Table 2).

Subjects also were not matched for age or severity of illness at the time of participation in the study. Because subjects were unevenly matched for confounding factors such as age, gender, severity of illness, type of IBD, presence of ileostomy/colostomy and past history of bowel surgery, cautious and judicious interpretation of findings was instituted by the investigator and the same use of findings is indicated for the reader.

#### Description of the Sample

Participants who met the eligibility criteria for this study were originally selected from the client lists of the two primary physicians at the B.C. Children's Hospital who attend children with IBD. Of the 43 potential subjects, one was unknown at the forwarding address provided and ultimately unreachable, one had moved to another province, and another's address could not be determined. Of the remaining 40

potential participants, six wrote letters to the investigator or telephoned expressing the wish not to participate in the study. Another 9 subjects did not respond to the request to participate in the study. Of the remaining 25 candidates, one participant's responses to the OSIQ were ruled ineligible due to too high a frequency of consecutive same-type responses. A total of 24 participants completed the study requirements.

The 24 adolescents in the study were between the ages of 12 and 20 and included 11 females and 13 males, 11 of whom had growth retardation. Eighteen of the participants were diagnosed with having Crohn's disease, 5 participants with ulcerative colitis and one with having IBD.

Of the 24 study participants, only one had a documented presence of delayed development of secondary sexual characteristics (DDSSC). The individual also had a significantly younger bone age than chronological age and a height measure equal to or less than the 10th percentile for age.

Most of the participants had lived in Canada all or almost all of their lives and most were of North American Anglo ethnic origin. The majority of the study participants were situated within the middle socioeconomic level as identified using a modified four factor index by Hollingshead (1975). All families had at least one parent employed outside of the home (see Table 3).

Table 3

Selected Characteristics of the IBD Sample

Years lived in Canada	Sample incidence (N = 24)
All their lives	16
All their lives,	
- less 1 year (or less)	4
- less 3 years	1
- less 4 years	1
- less 5 years	1
Missing value	<u>1</u>
Total	24
Ethnic Origin	Sample incidence (N = 24)
North American Anglo	17
European	3
Indo/Asian	3
Missing value	<u>1</u>
Total	24
Socioeconomic Status	Sample incidence (N = 24)
Low	0
Middle	20
Upper	2
Missing value	<u>2</u>
Total	24
Number of Parents Employed Outside of the Home	Sample incidence (N =24)
None	0
One	10*
Two	13**
Missing value	<u>1</u>
Total	24

\* Two of these families have an adolescent with growth retardation.

\*\* Nine of these families have an adolescent with growth retardation.



### The Self-Image of Adolescents with IBD

The data provided in the following sections include responses to questions on the OSIQ related to how study participants saw, thought and felt about themselves according to the 5 major selves, further classified into 11 subscales, as outlined by Offer et al. (1981a). The OSIQ was administered specifically to reveal information allowing for description of the self-image of the adolescents with IBD in this study. The questionnaire was also administered to reveal similarities and differences among the participant groups' and subgroups' perception of self according to the 11 subscales in the OSIQ.

#### Perception of the Psychological Self

The aspect of psychological self embodies the adolescent's concerns, feelings, wishes and fantasies. It includes three subscales a) impulse control - the participants' sense of control over their own impulses, b) emotional tone - the emotions they experience and c) body and self image - their conception of their bodies and related self-esteem and confidence (Offer, et al., 1981a; 1982a).

Impulse control. This subscale measures the adolescents' strength to ward off various pressures existing in their internal and external environments (Offer et al., 1981a). Comparisons of the standard score means for impulse control plus previously compared percent endorsements of subscale-specific items for the normative and IBD samples suggested that the males and females with IBD and the IBD sample, overall, compared favorably with the norm (see Table 4). The investigator

Table 4

Normative and IBD Samples' Standard Score Means for Impulse Control

Subscale	Samples			
	Normative	<u>n</u>	IBD	<u>n</u>
Impulse control				
Males & females	49.98	1385	52.24	24
Males	49.99	585	54.41	13
Females	49.97	800	49.67	11

interpreted the findings to suggest that the IBD adolescents have reasonable tolerances for frustration and do not act impulsively. The investigator also speculated from the results that this group of chronically ill individuals believe they have control over their lives and themselves in ordinary life situations. These findings are generally concordant with those of other investigators who have examined the self-image of physically ill adolescents with respect to this subscale (Landon et al., 1980; Offer et al., 1981a, 1984a).

Emotional tone. This subscale measures the degree of affective harmony, that is, the extent of emotional stability and fluctuation the adolescents perceived they experienced (Offer et al., 1981a).

Comparisons of the standard score means for emotional tone (see Table 5)

Table 5

Normative and IBD Samples' Standard Score Means for Emotional Tone

Subscale	Samples			
	Normative	<u>n</u>	IBD	<u>n</u>
Emotional Tone				
Males & females	50.00	1385	50.86	24
Males	49.99	585	47.24	13
Females	50.00	800	55.16	11

and the percent endorsements of subscale-specific items overall for the normative and IBD samples suggest that the IBD sample, overall, compared favorably with the norm in emotional tone (see Appendix A). However, comparisons of percent endorsements of subscale-specific items revealed considerable low adjustment in the IBD males in only one aspect, with respect to their experiencing consistent emotional satisfaction in their lives. They reported more frequently than the normative sample, who had already highly endorsed this item, that they were "so very anxious" (see Appendix C). Still, the majority of the adolescents with IBD did not endorse that they felt tense most of the time suggesting to the investigator that the anxiety reported is not consistently experienced and may refer to feelings associated only with new or unusual

situations. They did highly endorse feeling happy most of the time and feeling relaxed under normal circumstances (see Appendix A). Therefore, the investigator also speculated that it cannot be inferred legitimately that the anxiety felt by these adolescents was associated with concerns about their illness. Similar findings of high endorsement of the feeling anxious and low endorsement of the feeling tense most of the time subscale items, among physically ill subjects in other studies of adolescent self-image, are supported by and support the findings and interpretation made by this investigator (Kellerman et al., 1980; Offer et al., 1981a; 1984a).

Body and self image. The body and self image subscale measures the extent to which adolescents had adjusted to or felt awkward about their bodies and themselves in general (Offer et al., 1981a). Comparisons of the standard score means for body and self image (see Table 6) plus percent endorsements of subscale-specific items suggested that the adolescents with IBD overall, but chiefly the females, were less adjusted than the normative sample with respect to confidence in and satisfaction with their bodies, their health and themselves. According to the percent endorsements of specific items, the females were notably more worried about their health in the past year and felt less strong and healthy than did their healthy peers and the males with IBD. Also, the females with IBD more often felt that others saw them as being poorly developed and slightly less often felt proud of their bodies than did the norm and the males with IBD (see Appendix A).

Table 6

Normative and IBD Samples' Standard Score Means for Body and Self Image

Subscale	Samples			
	Normative	<u>n</u>	IBD	<u>n</u>
Body and self image				
Males & females	49.60	1385	47.15	24
Males	49.05	585	49.74	13
Females	50.00	800	44.10	11

These particular findings may not indicate that the female teenagers with IBD have an unusually poor body image because it is not uncommon for female adolescents to be particularly sensitive about and critical of their developing bodies (Offer et al., 1981a, p. 99). The results may suggest that the IBD females are more sensitive than males to any impairment of their bodies. Offer et al. (1981a) found that their normative male sample presented a much more positive feeling than did the females about their bodies and physical development. However, the investigator speculates that the findings related to percent endorsements of selected subscale items may suggest that these chronically ill adolescents are realistically aware of and legitimately concerned about their health status and any perceived problems related

to their physical development resulting from their illness. The results demonstrated notable lesser adjustment among the IBD female adolescents in only 3 of the 9 body and self image subscale items assessed, when compared to normative sample values. This finding led the investigator to suggest that, in general, the adolescents with IBD may be coping relatively successfully with their fears and worries about bodily changes related to their developmental life stage and concerns about any physical impairment related to their illness or its management.

These findings support some of the findings of other similar investigations. Offer et al. (1981a; 1984a) and other researchers cited in Offer et al. (1984a) have found that several groups of chronically physically ill adolescents, for example, those with asthma, cancer, cystic fibrosis, severe acne, marked pubertal delay, hypertension and kidney disease, were affected. There was a range of mild to severe maladjustment among the groups in terms of body image self-perceptions. Those with cancer were mildly less well-adjusted and those with cystic fibrosis were severely less well-adjusted than the norm with respect to how they viewed their bodies. Zeltzer et al.'s (1980) data revealed that the females in both their healthy and chronically ill groups reported a greater impact of illness and treatment on their physical appearance than did the males. The boys in Tavormina et al.'s (1976) chronically ill sample reported significantly fewer problems with physical appearance and attributes than did the girls. Crozier (1982) found that her sample of adolescents with ulcerative colitis indicated

both positive and negative body and self image perceptions arising from the impact of illness symptoms, current treatments and hospitalizations. Those that had ileostomies demonstrated a healthier sense of body image than those who had not had surgery, a sense of body image that was equivalent to their healthy peers' except for a lesser involvement in certain extracurricular activities such as sports and dating than was found in the norm.

### Perception of the Social Self

The social self embodies adolescents' sociability, morality and vocational ideals. It includes the three subscales a) social relationships - adolescents' perceptions of their interpersonal relationships, b) morals - their moral attitudes, values and standards, and c) vocational and educational goals - their vocational and educational values and ideals (Offer et al., 1981a).

Social relationships. This subscale measures object relationships and friendship patterns (Offer et al., 1981a). Comparisons of the standard score means for social relationships (see Table 7) plus percent endorsements of subscale-specific items revealed that the adolescents with IBD perceived themselves to be better adjusted overall in their interpersonal relationships than did the normative sample. In only one of the 9 subscale-specific items assessed did the IBD adolescents, particularly the females, demonstrate lesser adjustment than the norm. They indicated more often that they were sensitive to being rejected by others than did the norm (see Appendix A).

Table 7

Normative and IBD Samples' Standard Score Means for Social Relationships

Subscale	Samples			
	Normative	<u>n</u>	IBD	<u>n</u>
Social relationships				
Males & females	50.38	1385	56.03	24
Males	50.94	585	56.72	13
Females	49.96	800	55.22	11

The overall findings lead the investigator to speculate that these adolescents have a well-developed capacity for friendship and empathy with others. Offer et al. (1981a; 1984a) found either no significant differences, in general, between their physically ill and normal samples or better adjustment among the physically ill than the norm with respect to their sociability. They did find some small differences between their samples that were not revealed by this investigator's data. Their physically ill sample indicated more often than the norm that they usually felt out of place at picnics and parties and found it extremely hard to make friends. They also reported more often than the norm that they got terribly upset if others disapproved of them, as did this investigator's physically ill sample, evidencing the previously assessed sensitivity to rejection by others.



Morals. This subscale measures the extent to which the adolescent's conscience had developed (Offer et al., 1981a). Comparisons of the standard score means for morals (see Table 8) plus percent endorsements of this subscale's items revealed that females and males with IBD reported a perceived sense of duty, responsibility and concern for others that was more well-developed than that reported by the normative sample. The investigator's findings concurred with those of Offer et al. (1981a) with respect to their physically ill sample.

Table 8

Normative and IBD Samples' Standard Score Means for Morals

Subscale	Samples			
	Normative	<u>n</u>	IBD	<u>n</u>
Morals				
Males & females	49.98	1385	53.96	24
Males	50.01	585	53.33	13
Females	49.96	800	54.72	11

The findings have lead the investigator to speculate that chronically physically ill adolescents may be more sensitive to the needs of others and may be highly motivated to do the right thing by others possibly

resulting from a desire to be morally well-treated by others. The investigator postulates that these behaviors may stem from feelings of vulnerability perhaps related to the illness-experience of these adolescents and any existing physical disabilities they may have.

Vocational and educational goals. The vocational and educational goals' subscale measures how well the adolescents were preparing themselves for a future vocation (Offer et al., 1981a). Comparisons of the standard score means for vocational and educational goals (see Table 9) plus percent endorsements of items specific to this subscale suggest that, overall, the adolescents with IBD have worked as effectively within their educational systems and have made as reasonable plans for the future as have the normative sample. When subscale-specific items were examined for comparisons, in only one respect did the adolescents with IBD indicate that they were less adjusted than their healthy peers. Three times as many of the teenagers with IBD felt that working was too much of a responsibility for them as did the normal teens, although only 21% of the IBD sample endorsed this item (see Appendix A). The investigator was lead to speculate that similar results rendered by a larger sample in future studies would suggest that these chronically ill adolescents may be demonstrating an awareness of real limitations that may be created for them in the general educational system or workplace by the potentially disruptive nature of their illness.

Table 9

Normative and IBD Samples' Standard Score Means for Vocational and Educational Goals

Subscale	Samples			
	Normative	<u>n</u>	IBD	<u>n</u>
Vocational and educational goals				
Males & females	49.99	1385	51.82	24
Males	50.00	585	51.32	13
Females	49.99	800	52.42	11

The findings of Offer et al. (1981a) indicate that their physically ill sample endorsed work values, felt optimistic about their futures and felt that working was too much of a responsibility for them, similarly to this investigator's IBD sample. Samples of physically ill adolescents in other studies demonstrate equal or better than average adjustment in this dimension except for the females with cystic fibrosis whose responses indicate considerably less adjustment than the norm (cited in Offer et al., 1984a).

### Perception of the Sexual Self

The sexual self concerns the adolescents' perception about their sexuality and sexual experiences and behavior. It is a separate dimension of self consisting of the sexual attitudes subscale alone (Offer et al., 1981a).

Sexual attitudes. This subscale assesses the adolescents' feelings, attitudes, and behavior towards the opposite sex (Offer et al., 1981a). The normative and IBD samples' standard score means for sexual attitudes are provided in Table 10.

Table 10

#### Normative and IBD Samples' Standard Score Means for Sexual Attitudes

Subscale	Samples			
	Normative	<u>n</u>	IBD	<u>n</u>
Sexual attitudes				
Males & females	50.00	1385	47.15	24
Males	49.99	585	53.33	13
Females	50.01	800	39.86	11

These scores plus percent endorsements of subscale-specific items suggest that the female adolescents with IBD are considerably less

adjusted than the norm and the males with IBD with respect to sexual attitudes. Percent endorsements of specific items revealed that the females with IBD found it threatening to think or talk about sex and difficult to handle sex in a right way considerably more often than did the females in the normative sample. However, both males and females with IBD perceived themselves to be "sexually way behind" more often than the norm (see Appendix C). The females reported that sexual experiences gave them pleasure considerably less often than did the females in the normative sample. Yet, both males and females indicated that having a girlfriend/boyfriend was important to them as often as did the normative sample (see Appendix A).

These findings led the investigator to postulate that even though the adolescents with IBD may recognize their concerns about their sexual maturation they do not appear to deny the importance to themselves of its development in a natural way. The investigator is of the opinion that the results may reveal that the IBD females are not as sexually active as are the normative females but whether this is a consequence of IBD or not is not explicit. The investigator speculates that these findings may demonstrate the legitimate concerns these adolescents have about the real or potential effects of their chronic illness and its management on their capacity for normal sexual maturation and development of relationships.

These results are generally concordant with the results of Offer et al. (1981a), however, the adolescents with IBD in this study revealed a

more positive sexual self-image than did Offer et al.'s physically ill sample. It is of note that these authors also found that their normal male sample revealed they were more open to sexual feelings than were the females. The investigator queries whether the attitude of greater openness towards sexuality found among their males in the normative group may be a theme that recurs among all teenagers in North American middle-class society.

### Perception of the Familial Self

The familial self reflects adolescents' feelings and attitudes towards their families. It is believed that the feelings and attitudes adolescents have towards their families are crucial for their overall psychological health. It is believed that, if everything else is kept constant, a well-functioning family unit will contribute relatively more to the positive development of adolescents than will any other psychosocial variable (Offer et al., 1981a). One subscale, family relationships, reflects how well the adolescent's family unit functions.

Family relationships. This subscale measures the emotional atmosphere in the home (Offer et al., 1981a). Comparisons of the normative and IBD samples' standard score means for family relationships (see Table 11) plus percent endorsements of subscale-specific items suggested that the adolescents with IBD perceived themselves to relate better and communicate more openly with their parents than did the norm. However, these adolescents, especially the males, indicated lesser adjustment than their counterparts in the normative sample in two

items specific to this subscale. They reported that they try to stay away from home most of the time and usually feel they are a bother at home more often than the norm (see Appendix A).

These findings suggest an overall positive relationship between these adolescents and their families and concur with the findings of other similar studies (Offer et al., 1981a). The investigator speculates that the findings may also suggest that the males with IBD clearly felt they were somewhat of a burden to their families perhaps because of the perceived effects their chronic illness had on family functioning.

Table 11

Normative and IBD Samples' Standard Score Means for Family Relationships

Subscale	Samples			
	Normative	<u>n</u>	IBD	<u>n</u>
Family relationships				
Males & females	49.98	1385	53.68	24
Males	49.99	585	50.30	13
Females	49.98	800	57.67	11

### Perception of the Coping Self

Answers to the items with respect to the coping self reflect the ego strength the adolescents possess and how they cope with or adapt to stress. The coping self includes the subscales a) mastery of the external world and b) superior adjustment. The answers to items in these subscales describe how adolescents perceive themselves coping with their world. The third subscale of the coping self, c) psychopathology, reveals the signs and psychopathological symptoms the respondents state they have (Offer et al., 1981a).

Mastery of the external world. This subscale measures how well the adolescents adapted to their immediate environment (Offer et al., 1981a). Comparisons of the normative and IBD samples' standard scores means for mastery of the external world (see Table 12) plus percent endorsements of subscale-specific items suggested that the adolescents with IBD adapt to and function in their immediate environment without undue fear, doubt, indecision and frustration as effectively as their healthy peers do. The adolescents with IBD revealed lesser adjustment than the norm on only one of the items in this subscale. They endorsed that they repeat things continuously to be sure they are right considerably more often than did the normative sample (see Appendix A). The overall findings of this study, with respect to the subscale mastery of the external world, support the findings of Offer et al., (1981a) in relation to their physically ill sample.



Table 12

Normative and IBD Samples' Standard Score Means for Mastery of the External World

Subscale	Samples			
	Normative	<u>n</u>	IBD	<u>n</u>
Mastery of the external world				
Males & females	49.89	1385	50.41	24
Males	49.73	585	48.55	13
Females	50.00	800	52.60	11

Psychopathology. This subscale identifies any overt or severe psychopathology present within the adolescent (Offer et al., 1981a). The normative and IBD samples' standard score means for psychopathology are displayed in Table 13. Comparisons of these scores plus percent endorsements of subscale-specific items revealed that adolescents with IBD generally perceived themselves to be depressed, suffering or in pain when dealing with people and situations in their worlds slightly less often than did their healthy peers. However, the males with IBD reported that they felt empty emotionally most of the time and had strange and funny feelings when they entered a new room more often than their healthy male counterparts did, perhaps indicating feelings of

self-consciousness (see Appendix A). These general and specific findings were similar to those of Offer et al. (1981a) with respect to their physically ill sample.

Table 13

Normative and IBD Samples' Standard Score Means for Psychopathology

Subscale	Samples			
	Normative	<u>n</u>	IBD	<u>n</u>
Psychopathology				
Males & females	49.98	1385	52.68	24
Males	49.99	585	49.31	13
Females	49.97	800	56.67	11

Superior adjustment. This subscale measures how well adolescents coped with themselves, significant others and their worlds (Offer et al., 1981a). Comparisons of the normative and IBD samples' standard score means for superior adjustment (see Table 14) plus percent endorsements of specific items suggested that the adolescents with IBD coped better with themselves, significant others and their worlds than their healthy peers did. However, the males with IBD did report more often than did their healthy male peers, that they did not enjoy solving

difficult problems, demonstrating less adjustment on one item specific to the superior adjustment subscale. The findings did not suggest that it was harder for these adolescents to make friends easily than it was for their healthy peers as was found in Offer et al.'s physically ill sample (1981a).

Table 14

Normative and IBD Samples' Standard Score Means for Superior Adjustment

Subscale	Samples			
	Normative	<u>n</u>	IBD	<u>n</u>
Superior adjustment				
Males & females	49.96	1385	53.74	24
Males	49.99	585	53.12	13
Females	49.94	800	54.47	11

Additional Analysis

The two-tailed t-tests performed on the standard scores of the normative and IBD samples for each subscale in the OSIQ did not reveal statistically significant differences between the groups at the p-value of 0.05. As it was discussed in Chapter 3, since the methodology did not meet all the assumptions required for the appropriate use of t-tests

in this study, the investigator was not able to rule out, by t-test results, the possible effects or differences among groups incurred by the presence or absence of IBD or IBD and growth retardation that were suggested by comparisons of standard score means and percent endorsements of subscale-specific items found in the discussion of the results.

### Summary

The results revealed that the adolescents with IBD saw, thought and felt themselves to be similar to the way their healthy peers saw, thought and felt themselves to be, in most respects. The IBD sample perceived themselves to be in control of their impulses, to experience emotional harmony and stability consistently, to be able to form satisfactory interpersonal relationships and to possess moral values and endorse work values commensurate with those of the larger society. They indicated they had positive feelings towards their families and family life, were optimistic about their futures, coped well with their fears, doubts, stresses and shortcomings related to themselves, significant others and their worlds, in general, and did not report overt psychopathological signs and symptoms. However, the females with IBD perceived themselves to be considerably more worried about their health and to feel considerably less strong and healthy than did the normative and the male IBD samples. The expression of these concerns and feelings made by chronically ill individuals is not unexpected. The investigator speculates that less frequent expression of these sentiments by the

males with IBD than the females may be explained by a possible decreased sensitivity to impairment of their bodies or by differing illness experiences among the males at the time of response to the study questionnaire, variables that were not controlled for in the study. In addition, the IBD females, in particular, revealed less confidence in their sexuality and sexual maturation than the normative and male IBD samples. The investigator proposes that this finding may be explained by an increased sensitivity to body impairment, heightened criticism of the developing body during the pubertal life stage and greater sexual inactivity among these females than among the other samples in the study.

The overall findings did not lend support to the hypothesis that these individuals "bring on" their illness as a result of existing specific "deviant" personality traits or psychological conflicts nor did they lend support to the supposition that adolescents with IBD tend to develop psychological problems as a consequence of the illness and its manifestations and treatments (Foulds, 1984). Rather the participants' self-perceptions in the 11 areas measured indicated that these chronically physically ill adolescents possess strength of character and effective coping abilities (Tavormina et al., 1976). The findings indicated that they have a generally positive self-image and are psychologically as well-adjusted as the norm in most aspects of the self examined (see Figure 1, Appendix E).

The findings of studies investigating singular or multiple aspects of the self-image of physically ill adolescents generally concurred with this investigator's findings except for the few small differences previously noted (Adams & Weaver, 1986; Crozier, 1982; Kellerman et al., 1980; Offer et al. 1981a; Tavormina et al., 1976; Zeltzer et al., 1980). An exception to this are the findings of Landon et al. (1980) in their study of cystic fibrosis teenagers. These adolescents presented with a distinctly disturbed self-image. They reported adjustment equal to or better than the norm in only one of the OSIQ subscales assessed, the familial self. The major differences between these adolescents and the other physically ill samples in the study were that the genetic disorder, cystic fibrosis, is known to be lethal generally in young adulthood, and often to result in delayed growth and sexual development (Landon et al., 1980). Perhaps these factors played a part in influencing these adolescents to present themselves with a disturbed self-image.

Similarities and Differences in Self-Image Among the IBD Adolescents  
with and without Growth Retardation and their Healthy Peers

Had the two IBD subgroup samples, those with growth retardation and those without, been larger in numbers and more equally distributed with respect to frequencies of age, gender, type of IBD, past history of bowel surgery and presence of ileostomy/colostomy, the effect of growth retardation on the self-image of adolescents with IBD could have been

more effectively controlled for and assessed. Therefore, the results of the study have been interpreted with caution.

The following presentation of results and the discussion of findings will follow the same format used to describe the self-image of IBD adolescents. Summary statistics, means of standard scores per subscale for groups and percent endorsements of subscale-specific items, will be used to describe and compare self-images of the groups being investigated and to interpret the effects of growth retardation on the self-image of adolescents with IBD. The results of t-tests performed on the standard score means and standard deviations for the normative and the growth retarded samples will be discussed.

The two-tailed t-test results of comparisons between the normative and growth retarded IBD samples of standard score means and standard deviations for subscales did not reveal statistically significant differences at the p-value of 0.05. However, this test of difference was being used only as a rough guide (since the study did not meet all the assumptions inherent in the use of t-tests) because more appropriate statistical tests of difference could not be used, since only summary statistics were available in the normative sample rather than a complete list of raw and standard scores for individuals. Therefore, similarities and differences among the males and females in the normative sample and IBD subgroups were reviewed, based on comparisons of subscale standard score means and percent endorsements of selected subscale-specific items.

### Perception of the Psychological Self

Impulse Control. Comparisons of the three groups' standard score means for impulse control (see Table 15) and percent endorsements of subscale-specific items revealed that the IBD adolescents with GR perceived themselves to be as able to ward off pressures existing in and outside of themselves and delay gratification as did their healthy peers, but less able than the non-growth retarded sample overall. The IBD males without GR perceived themselves to be particularly well-adjusted with respect to control of their impulses. Landon et al.'s (1980) male cystic fibrosis sample with GR (N = 16) and a growth

Table 15

#### Normative Sample's and IBD Subgroups' Standard Score Means for Impulse Control by Gender

Subscale	Groups					
	Normative	<u>n</u>	IBD without GR	<u>n</u>	IBD with GR	<u>n</u>
Impulse control						
Males & females	49.98	1385	53.68	13	50.54	24
Males	49.99	585	58.70	6	50.74	13
Females	49.97	800	49.37	7	50.20	11



retarded but otherwise healthy male sample (N = 34), used for comparison purposes, showed marked lesser adjustment on at least 7 of the 11 OSIQ subscales assessed when their values were compared to those of their normative sample. Perceived ability to control impulses was one of the subscales these male growth retarded samples revealed marked lesser adjustment in when compared to the norm.

Emotional Tone. Comparison of the three groups' standard score means for emotional tone (see Table 16) and percent endorsements of subscale-specific items suggested that the male adolescents with IBD and GR experienced more emotional disharmony than the females with GR and

Table 16

Normative Sample's and IBD Subgroups' Standard Score Means for Emotional Tone by Gender

Subscale	Groups					
	Normative	<u>n</u>	IBD without GR	<u>n</u>	IBD with GR	<u>n</u>
Emotional tone						
Males & females	50.00	1385	55.36	13	45.56	11
Males	49.99	585	52.88	6	42.40	7
Females	50.00	800	57.48	7	51.10	4

the normative and non-growth retarded samples. The data also suggested that the females with GR experienced somewhat more harmonious and stable emotions than the normative sample. To be more specific, the males with GR endorsed that they were very anxious considerably more often than the norm did. However, they did not endorse that they felt tense most of the time nearly as frequently as they endorsed feeling anxious, a response similar to the normative sample's response. These findings led the investigator and authors of similar studies to suggest that the anxiety reported is not continuous and may apply only to new or unusual situations, as was previously inferred in the discussion found in the section The Self-Image of Adolescents with IBD (Offer et al., 1981a). Therefore, it also cannot be inferred unequivocally that high endorsement of feelings of anxiety among these individuals stemmed from usual concerns or dealings with their chronic illness or its manifestations. The growth retarded males also reported feeling inferior to the people they know and feeling lonely more often than did the norm and the females with GR, and especially more often than the non-growth retarded sample. Yet, it should be noted that the majority of the adolescents in all groups, including the growth retarded males and females, highly endorsed that they felt happy most of the time and enjoyed life (see Appendix A). The findings for the growth retarded males with IBD are conflicting and therefore, any inferences that may be speculated on about the effects of GR on this sample's emotional tone are unsupportable. These findings support those of another study

investigating the self-image of growth retarded or chronically physically ill adolescents with GR (Landon et al., 1980) perhaps suggesting that there may be some evidence to propose that health professionals working with growth retarded males should be alert for maladjustment in emotional tone among this group of individuals.

Body and Self Image. Comparisons of the three groups' standard score means for body and self image (see Table 17) and percent endorsements of subscale-specific items revealed that the IBD subgroup with GR is considerably less well-adjusted than the normative sample and especially less well-adjusted than the non-growth retarded subgroup in this

Table 17

Normative Sample's and IBD Subgroups' Standard Score Means for Body and Self Image by Gender

Subscale	Groups					
	Normative	<u>n</u>	IBD without GR	<u>n</u>	IBD with GR	<u>n</u>
Body and self image						
Males & females	49.60	1385	52.01	13	41.42	11
Males	49.05	585	60.11	6	40.84	7
Females	50.00	800	45.06	7	42.42	4

subscale. However, the females in the non-growth retarded subgroup also revealed less adjustment than females in the normative sample but better adjustment than did females in the subgroup with GR (see Appendix A). To be more specific, females with GR revealed poor adjustment in 3 of the 9 items specific to this subscale. They reported themselves as feeling strong and healthy less often, and being worried about their health in the past year and believing that others see them as being poorly developed more often, than did the normative and non-growth retarded samples. However, the non-growth retarded females reported feeling proud of their bodies less often than all the other study participants.

Males with growth retardation revealed considerable lesser adjustment in 3 of the 9 items in the body and self image subscale. They more often thought they were not the person they would like to be and more frequently felt ugly and unattractive than all the other subjects did. They also felt less strong and healthy than did the normative and non-growth retarded samples.

The entire sample of non-growth retarded and especially growth retarded adolescents reported being worried about their health in the past year considerably more often than the norm. In addition, the entire growth retarded sample reported feeling strong and healthy considerably less often than the normative and non-growth retarded samples. Nevertheless, both the males and females with GR reported being proud of their bodies and being somewhat satisfied with the recent

changes in their bodies as often as their normative counterparts did, the males reporting pride in their bodies considerably more often than the females (see Appendix A). The findings suggested that both IBD subgroups are clearly more concerned about their health than the norm and that is understandable considering the nature of the chronic illness they must live with. It is also understandable that those with GR viewed themselves as less well and whole than the normative and non-growth retarded adolescents did, although they did not report significantly less pride in and satisfaction with their bodies than the normative sample. That the males with GR were clearly less happy with their physical appearance and the person they are than were the female and all other male subjects, might be a reflection of the effects of growth retardation, a generally conspicuous characteristic in the male. It has been suggested that there would likely be impairment of the self-image among those in whom there existed a social stigma that was easily noticed (Offer et al., 1984a). Yet, even though the data reflected considerable sensitivity to body impairment among the females with GR, the data also might suggest that these females were more confident about their appearance and more satisfied with the person they are than were the males with GR. This finding may be explained by the general acceptance by society of small stature and size in females and by the greater facility with which females are able to disguise abnormally short stature and small physical dimensions. These findings support those general findings of other studies investigating the

self-image of adolescents who have been documented with having GR, some of whom also have physical illnesses (Landon et al., 1980; Mitchell, Joyce, Johanson, Libber, Plotnick, Migeon & Blizzard, 1986).

### Perception of the Social Self

Social Relationships. Comparisons of the three groups' standard score means for this subscale (see Table 18) and percent endorsements of subscale-specific items suggested that both IBD subgroup samples reported equivalent or notably better adjustment than the norm in social relationships. The males more often endorsed that they usually felt out of place at picnics and parties than the members of all other groups

Table 18

### Normative Sample's and IBD Subgroups' Standard Score Means for Social Relationships by Gender

Subscale	Groups					
	Normative	<u>n</u>	IBD without GR	<u>n</u>	IBD with GR	<u>n</u>
Social relationships						
Males & females	50.38	1385	61.46	13	49.62	11
Males	50.94	585	66.33	6	48.48	7
Females	49.96	800	57.29	7	51.61	4

perhaps indicating some degree of social self-consciousness. The growth retarded adolescents, especially the females, reported becoming terribly upset if others disapproved of them, perhaps providing some evidence of fear of rejection by others. This particular result was also somewhat evident in the non-growth retarded females (see Appendix A).

The findings suggest that the IBD adolescents with growth retardation perceived themselves to be as well-adjusted in their interpersonal relationships as the norm but not as highly adjusted as the non-growth retarded sample. All of the IBD adolescents indicated their sociableness, and their willingness and ability to form friendships. They reported that they looked forward to and enjoyed social opportunities and occasions.

The male growth retarded samples in another similar study of adolescent self-image reported lesser adjustment in this subscale than their normative sample. The males in these samples had either cystic fibrosis or pubertal delay as their overriding diagnosis suggesting perhaps other factors that may be influencing their sociability (Landon et al., 1980). In addition, Mitchell et al.'s (1986) male growth retarded sample also reported finding social relationships with peers of both sexes to have been inadequate.

Morals. Comparison of the three groups' standard score means for the morals subscale (see Table 19) and percent endorsements of subscale-specific items revealed considerably better adjustment among the IBD adolescents with GR than the norm and somewhat better adjustment

Table 19

Normative Sample's and IBD Subgroups' Standard Score Means for Morals by Gender

Subscale	Groups					
	Normative	<u>n</u>	IBD without GR	<u>n</u>	IBD with GR	<u>n</u>
Morals						
Males & females	49.98	1385	52.77	13	55.38	11
Males	50.01	585	55.14	6	51.79	7
Females	49.96	800	50.75	7	61.68	4

among the growth retarded sample than the non-growth retarded IBD adolescents. No subgroups within any of the samples studied revealed notable poor adjustment in any of the items comprising this subscale. The IBD sample with GR was better adjusted than the normative group in 6 of 10 subscale-specific items and equally adjusted in another 2 items in this subscale.

The data suggest that the IBD adolescents with GR may have a considerably more well-developed sense of duty, responsibility and concern for others than the normative and the non-growth retarded sample in general, although the non-growth retarded males demonstrated better adjustment than the growth retarded males in this subscale. The results



suggest that the growth retarded sample are truthful, altruistic and trusting. They perceived themselves to take responsibility for their actions and to believe in fair play and the importance of good sportsmanship.

The investigator speculates that the sample with GR may feel more vulnerable than others, with respect to the exchange of principles of fair play among individuals, perhaps because of limitations rendered them by their illness and its manifestations, such as GR. The investigator postulates that vulnerability may in part account for their heightened moral sensitivity and regard for others.

Landon et al.'s (1980) general findings for their cystic fibrosis sample are concordant with those of this investigation. However, their specific findings indicated their pubertally and/or growth delayed male sample was less adjusted than the norm with respect to moral values and standards.

Vocational and Educational Goals. Comparisons of the three groups' standard score means for this subscale (see Table 20) and the percent endorsements of subscale-specific items revealed somewhat poorer adjustment among growth retarded males than among most other subjects. However, this poorer adjustment was demonstrated in only 2 of the 10 subscale-specific items. To be specific, percent endorsements of items revealed that this subgroup felt that working was too much of a responsibility for them and reported that school and studying meant very little to them more often than did the other males and most of the

Table 20

Normative Sample's and IBD Subgroups' Standard Score Means for  
Vocational and Educational Goals by Gender

Subscale	Groups					
	Normative	<u>n</u>	IBD without GR	<u>n</u>	IBD with GR	<u>n</u>
Vocational and educational goals						
Males & females	49.99	1385	52.20	13	51.38	11
Males	50.00	585	56.68	6	46.73	7
Females	49.99	800	48.36	7	59.51	4

female subjects in the study. The ratio of older males to younger males in the growth retarded subgroup was 6:1. Half of the older males had completed their secondary school education and were working full time. This factor may have affected their responses to these items potentially skewing scores so that a true indication of self-perception was not rendered, particularly with respect to the school and studying item. However, if the respondents' scores for these items were a true indication of self-perception, Offer et al. (1981a) suggest that physically ill adolescents such as these may be demonstrating an awareness of their real limitations in the workplace. In addition,

females in the non-growth retarded sample reported they felt that working was too much of a responsibility for them more often than did the females in the other samples (see Appendix A).

The findings suggest that the adolescents with GR are somewhat more well-adjusted than the norm and almost as well-adjusted as the non-growth retarded sample with respect to the accomplishment of educational tasks and planning for a vocational future. The investigator speculates that the data may suggest somewhat of a trend among the adolescents with IBD towards their feeling that work is too much of a responsibility for them. The investigator cautiously interprets this data to suggest that these individuals may be indicating their concerns about an inability to fulfill normal employment requirements because of the nature of their illness, an interpretation that requires further investigation.

#### Perception of the Sexual Self

Sexual Attitudes. Comparisons of the three groups' standard score means for this subscale (see Table 21) and percent endorsements of subscale-specific items revealed that the IBD females with GR are considerably less well-adjusted than any other group or subgroup in this study with respect to their feelings, attitudes and behavior towards the opposite sex. The females with GR revealed notable lesser adjustment than the norm in 6 of 10 items and notable lesser adjustment than the subjects without GR in 4 of the 10 items specific to this subscale. For

Table 21

Normative Sample's and IBD Subgroups' Standard Score Means for Sexual Attitudes by Gender

Subscale	Groups					
	Normative	<u>n</u>	IBD without GR	<u>n</u>	IBD with GR	<u>n</u>
Sexual attitudes						
Males & females	50.00	1385	56.26	13	36.39	11
Males	49.99	585	63.96	6	44.21	7
Females	50.01	800	49.67	7	22.69	4

example, they reported that they thought about sex less often and that thinking or talking about sex frightened them more than the other subjects did, including the males with GR. The females also reported thinking that boys/girls found them attractive less often than the other subjects did. In addition, 50% of the IBD females with GR felt it was hard for a teenager to know how to handle sex in a right way (endorsed by 71% of the non-growth retarded females) and perceived themselves to be sexually way behind (endorsed by 57% of the males with GR; see Appendix A). None of these females endorsed that sexual experiences gave them pleasure. Three females in the IBD subgroup without GR omitted answering this last item. The males in the IBD subgroup with GR

reported that they felt they were sexually way behind more often and indicated that sexual experiences gave them pleasure less often than did the normative and non-growth retarded males (see Appendix A).

The findings suggest that the IBD adolescents without GR are more open to their sexuality than the norm and certainly more so than the growth retarded sample. The data also suggest that the IBD females and to some extent the males with GR are considerably more conservative about their sexuality than the other subjects. However, the small sample sizes of females and males with GR in this study requires that findings about this sample be interpreted cautiously and judiciously. Therefore, the investigator interpreted the data to imply that the females with GR, and to a certain extent the males with GR, tended to perceive themselves as delayed in development with respect to their sexuality and their experiences and behavior towards the opposite sex. For example, more than half of the growth retarded adolescents reported feeling that they were sexually way behind and a little more than a third indicated that sexual experiences gave them pleasure. The investigator speculates that this may indicate that they are not as sexually active as the adolescents in the other groups, particularly the females with GR who were of a young age (see Table 1, p. 35). However, a large percentage of the growth retarded adolescents, as high a percentage as in the other groups, did feel that having a boyfriend/girlfriend was important to them indicating their interest in or concern about functioning and dealing with their emerging sexuality

in a way that is considered appropriate by their peers and society in general.

The growth retarded males, but not the females, in Landon et al.'s study (1980) demonstrated significant maladjustment with respect to their perceived attitudes, feelings and behavior towards the opposite sex.

### Perception of the Familial Self

Family Relationships. The participant groups' standard score means for this subscale (see Table 22) and percent endorsements of subscale-specific items suggested that only the IBD males with GR revealed less adjustment than the other subjects in the area of family relationships. The data showed that the males with GR reported that they usually felt they were a bother at home, tried to stay away from home most of the time and felt their parents would be disappointed in them in future, notably more often than the other male and female study participants did. They also reported they felt that their parents were satisfied with them most of the time less often than the other participants did (see Appendix A).

The investigator speculates that these findings suggest that the males with GR, yet not the other subjects, may have some concerns about their contributions to their families' functioning and that they may feel themselves to be somewhat of a burden to their families. The investigator postulates that these individuals may have these concerns and feelings because of the effects their illness may have on their

Table 22

Normative Sample's and IBD Subgroups' Standard Score Means for Family Relationships by Gender

Subscale	Groups					
	Normative	<u>n</u>	IBD without GR	<u>n</u>	IBD with GR	<u>n</u>
Family relationships						
Males & females	49.98	1385	56.77	13	50.03	11
Males	49.99	585	58.15	6	43.57	7
Females	49.98	800	55.58	7	61.33	4

families, generally, or because of a lack of confidence in or general concerns about their future self-sufficiency capabilities as adults.

However, all study participants highly endorsed items indicating that they felt they would be a source of pride to their parents in the future, could count on their parents most of the time, and had a part in making family decisions. They also highly endorsed that their parents got along well with each other most of the time, that their parents were right when strict even if the respondents got angry, and that their own families when they will have them would be similar to their present families. The results did suggest that, in general, the emotional atmosphere in the homes of the IBD adolescents with GR was equivalent to

that of the normative sample but not as healthy an atmosphere as that in the homes of the non-growth retarded sample. These results generally concur with those of another, similar adolescent self-image study although the growth retarded males' scores in this study were more concordant with the norm than were those in this investigation (Landon et al., 1980).

### Perception of the Coping Self

Mastery of the External World. Comparisons of the three groups' standard score means for this subscale (see Table 23) suggested less adjustment than the norm among only the males in the IBD subgroup with GR. Comparisons of percent endorsements of subscale-specific items revealed that males with GR reported considerable lesser adjustment than the norm in only one item specific to this subscale. Seventy-one percent of these males reported that they repeated things continuously to be sure they were right compared to 45% of the normative male sample and 67% of the male non-growth retarded sample who did so. They revealed less adjustment than the other males in two other items. Seventy-one percent of the males with GR reported they could learn almost anything if they put their minds to it compared to the higher endorsements made by the other subjects. Twenty-nine percent of the males with GR stated they were fearful of growing up compared to the lower endorsements made by the other male subjects (see Appendix A.)

The investigator speculates that these findings may suggest that the IBD adolescents without GR perceived themselves to be more adaptable



Table 23

Normative Sample's and IBD Subgroups' Standard Score Means for Mastery of the External World by Gender

Subscale	Groups					
	Normative	<u>n</u>	IBD without GR	<u>n</u>	IBD with GR	<u>n</u>
Mastery of the external world						
Males & females	49.89	1385	54.36	13	45.73	11
Males	49.73	585	54.97	6	43.06	7
Females	50.00	800	53.85	7	50.41	4

to their immediate environments and capable of finishing tasks than did the normative and especially the growth retarded male samples. The investigator postulates that the results also may suggest that, although the growth retarded males felt that they could function effectively in their immediate worlds in a general sense, they also demonstrated a tendency to feel fearful of growing up and to feel less fully confident in their learning abilities, perhaps indicating some reservations about their future capabilities and self-sufficiency.

Another similar study has shown that the standard scores of their growth retarded male samples were more concordant with their normative

sample for this subscale than was the present study's male growth retarded sample's scores with its normative sample (Landon et al., 1980).

Psychopathology. Comparisons of the three groups' standard score means for this subscale (see Table 24) suggested less adjustment than the normative sample only among the males in the IBD subgroup with GR. Comparisons of percent endorsements of items revealed that in only 3 of the 14 items specific to this subscale did the males with IBD and GR reveal lesser adjustment than the normative and non-growth retarded samples. The growth retarded males stated more often, that they felt empty emotionally most of the time and had a strange and funny feeling when they entered a room, than the other subjects did (see Appendix A). The findings suggest that the non-growth retarded IBD adolescents demonstrated fewer signs and symptoms of psychopathology than did the normative and growth retarded samples. The growth retarded and normative samples revealed almost equal adjustment overall in this subscale. The growth retarded males did report feelings of emotional emptiness and general self-consciousness more often than the other study participants, leading the investigator to speculate that the males with GR may be more bothered or upset about their illness or its manifestations, such as GR, than the other samples may be. These findings are concordant with those of another similar study concerning the self-image of growth retarded adolescents (Landon et al., 1980).

Table 24

Normative Sample's and IBD Subgroups' Standard Score Means for  
Psychopathology by Gender

Subscale	Groups					
	Normative	<u>n</u>	IBD without GR	<u>n</u>	IBD with GR	<u>n</u>
Psychopathology						
Males & females	49.98	1385	55.16	13	49.75	11
Males	49.99	585	53.11	6	46.05	7
Females	49.97	800	56.93	7	56.22	4

Superior Adjustment. Comparisons of the three groups' standard score means for this subscale (see Table 25) and percent endorsements of subscale-specific items revealed that the IBD subgroups compared favorably with the normative sample, their scores suggesting better than average adjustment in this subscale.

The data suggest that the IBD adolescents with GR cope with themselves, significant others and their worlds, almost as well as the non-growth retarded sample and better than the normative sample. The investigator postulates that these findings are an indication of the overall strength the IBD adolescents possess, having had to cope with a

Table 25

Normative Sample's and IBD Subgroups' Standard Score Means for Superior Adjustment by Gender

Subscale	Groups					
	Normative	<u>n</u>	IBD without GR	<u>n</u>	IBD with GR	<u>n</u>
Superior adjustment						
Males & females	49.96	1385	54.16	13	53.24	11
Males	49.99	585	56.78	6	49.98	7
Females	49.94	800	51.92	7	58.94	4

debilitating chronic illness and the effects of its manifestations on their social, scholastic, vocational and family lives. The findings of another study investigating the self-image of growth retarded adolescents indicated that both males and females were less adjusted than the norm in this aspect of the self (Landon et al., 1980).

Summary

Although the sample sizes within the IBD subgroups were small, they were almost equal in the distribution of numbers of subjects and in the distribution of males (6:7) and less equal in the distribution of females (7:4). Despite the small sample sizes, the findings did suggest similarities and differences between the growth retarded and non-growth

retarded adolescents and between these two groups and the normative sample, with respect to self-image.

The non-growth retarded sample perceived themselves to be better adjusted than the norm in every subscale and better adjusted than the growth retarded samples in every subscale but morals. They perceived themselves to be able to control their impulses and delay gratification, to experience emotional harmony and stability, to adjust to their bodily changes successfully and feel confident about their bodies, to develop and maintain interpersonal relationships, to demonstrate a sense of duty, responsibility and concern for others, to learn satisfactorily and plan for a vocational future, to be comfortable and open about their emerging sexuality, to get along well with their families and to effectively adapt to and cope with themselves, significant others and situations in their worlds, better than the other samples did. The investigator speculates that the presence of inflammatory bowel disease, its manifestations and its treatment does not appear to have affected negatively the self-image of these individuals who are also having to cope with the accomplishment of the developmental tasks expected of them in this maturational life stage. Rather, if the existence of this chronic illness has had an effect on their self-image, it has been positive. The investigator proposes that the findings suggest that these individuals have met the challenge of dealing with this illness and its ramifications with strength and optimism rather than with a lack

of confidence and with overwhelming fear, doubt and depression and the blaming of others for their health-related difficulties.

The IBD adolescents with GR have notably less positive self-images than the non-growth retarded sample in five of the 11 subscales measured. They perceived themselves to have experienced emotional harmony and stability, adaptation to and confidence in their bodily changes and their bodies, confidence in their interpersonal relationships and capacity for empathy with others, confidence in and competence with their emerging sexuality and adaptation to frustration in their immediate environment, less often than have the non-growth retarded sample. However, they have revealed their sense of morality to be more well-developed than did the normative sample and the non-growth retarded females. The investigator postulates that the differences between the non-growth retarded and growth retarded IBD samples' scores suggest that GR, a manifestation of IBD, may have a negative effect on the development of a positive self-image in these adolescents. The negatively affected aspects of the self could be considered the most logical areas to be affected in the adolescent with a visible physical social stigma such as GR.

In comparison to the normative sample, the findings suggest that IBD adolescents with GR are notably more maladjusted with respect to their adaptation to and self confidence in their developing bodies and their openness about their emerging sexuality. In addition, the findings suggest that the males with GR may be somewhat more maladjusted

in their emotional harmony, their ability to successfully cope with their immediate environment and their relations with their family than the norm and the females with GR.

The differences between the growth retarded and the normative samples and the differences between the growth retarded and the non-growth retarded samples, when reviewed overall, suggest that,

a) the presence of IBD alone does not appear to have a negative effect on the self-image of the adolescents in this study and if anything, has a positive effect.

b) the presence of GR in these adolescents may negatively affect the self-image. The growth retarded females viewed themselves as less well and whole than the other samples. However, the non-growth retarded IBD females were as worried about their health as the growth retarded IBD females. The investigator considers this to be a legitimate concern among chronically physically ill individuals. In addition, that individuals who are not growth retarded do not appear to see themselves to be as weak and unhealthy as the growth retarded individuals do, is also an expected perception. The growth retarded females also viewed themselves to be delayed in their development with respect to their sexuality and behavior with the opposite sex when compared to the other study samples. This may suggest they are less active sexually than the other samples, a finding perhaps attributable to their GR, and their ages and a potential resultant lack of confidence in their physical selves and their sexuality.

The males with GR presented themselves as being more emotionally labile than the other subjects, reporting that they felt lonely and inferior to others but also that they felt happy most of the time and able to enjoy life. The investigator speculates that perhaps the presence of GR among this sample has resulted in the generation of negative thoughts about self and a lack of confidence in initiating peer relationships but that this has not interfered or they deny it has interfered with their basic capacity to be happy and enjoy life. These males also reported feeling less strong and healthy and less happy with their physical appearance and with the person they were than did all other subjects perhaps again reflecting the effects of the presence of GR, a speculation of the investigator.

The growth retarded males also viewed themselves as being delayed in their development with respect to their sexuality and their experiences with the opposite sex perhaps an indication of greater sexual inactivity in this group than among the subjects in the normative and non-growth retarded samples. The investigator proposes that the aforementioned speculation about the sample's sexual activity may be a reflection of the effects of GR on their self-confidence in relating with the opposite sex. The investigator postulates that, given the number and complexity of developmental tasks presented by adolescence, it is not surprising that the growth retarded IBD sample revealed disturbances in their self-images, particularly in the areas discussed.



c) the presence of GR appears to have affected the self-image of the males more negatively than the females. This may be considered an expected finding. The investigator suggests that the theory that this usually visible stigma is less socially acceptable and less easily disguised in the male may be demonstrated in and supported by the results of this investigation.

## CHAPTER FIVE

### Summary, Conclusions and Recommendations

#### Summary and Conclusions

Adolescence is a critical life period with respect to the development of the self. Adolescent perception of self is influenced by the dramatic physical, social and emotional changes characteristic of this maturational life period. The way adolescents see, think and feel about themselves, or their self-image, is formed , to a large extent, as a result of how successfully they view themselves adapting to these changes and accomplishing the developmental tasks expected of them by society. The literature and the investigator's clinical experience have shown that the nature of IBD, its treatment and its manifestations, such as growth retardation, may have a conceivably disruptive effect on the lifestyle, social and family relationships and education and career development of a notable number of adolescents, potentially affecting their perceptions of their functioning in these areas and therefore, their perceptions of themselves. These observations and postulations led the investigator to question the effect of IBD in general, and growth retardation in the IBD adolescent in particular, on the self-image. Prior research has examined the variables of adolescence, chronic illness and growth retardation and their effect on single or

multiple aspects of self-image. In an attempt to extend the existing knowledge of the self-image of chronically, physically ill adolescents a descriptive-comparative study was conducted to describe the self-image of adolescents with IBD and to compare the similarities and differences in self-image between the IBD adolescents with and without growth retardation in order to determine the effect of IBD and growth retardation on the self-image.

A multidimensional conceptualization of self-image as defined by Offer (1969), Offer and Howard (1972) and Offer et al. (1981a, 1982a) was the framework on which the study was grounded. Offer et al. (1981a, p. 17) define self-image as "the phenomenal self, ... the me as experienced or perceived by the person whom we seek to know." Offer (1969) conceptualized the self-image of the adolescent as consisting of five selves, the psychological, social, sexual, familial, and coping selves.

These five major selves are further categorized into 11 separate content areas representing the 11 subscales in the Offer Self-Image Questionnaire (OSIQ) for adolescents. The three subscales comprising the psychological self measure adolescents' concerns, feeling, wishes and fantasies, the subscales representing the social self measure perception of interpersonal relationships, moral attitudes and vocational and educational goals, the sexual self subscale measures feelings, attitudes and behaviors towards the opposite sex, the familial self subscale measures the emotional atmosphere in the home and the

three subscales comprising the coping self measure adolescents' perceptions of their ability to cope with or adapt to themselves, significant others and their worlds.

Twenty-four subjects, who were attended by two physicians at the British Columbia Children's Hospital, agreed to participate in the study. They ranged in age from 12 to 20 and were unevenly distributed for age, gender, type of IBD, severity of illness at the time of the study, past history of bowel surgery, and presence of ileostomy/colostomy. The 24 eligible subjects formed three groups, those with IBD and growth retardation ( $n=11$ ) those with IBD without growth retardation ( $n=13$ ) and the former two IBD subgroups combined ( $N=24$ ). The findings for the three groups were each compared with Offer et al.'s (1981a) normative sample and the IBD subgroups' findings were also compared with each other's. As well, the findings for females and males were compared overall. Group and subgroup comparisons were made using summary statistics, the groups' and subgroups' standard score means for subscales, and their percent endorsements of selected subscale-specific items.

The data were collected using the Offer Self-Image Questionnaire for adolescents. The questionnaires were mailed to the subjects and returned to the investigator by mail. Ethical considerations were maintained.

Eighteen of the adolescents with IBD had Crohn's disease, 5 had ulcerative colitis and one was diagnosed with having unclassified IBD.

Eleven of the 24 adolescents with IBD had growth retardation, all of them with Crohn's disease. As a result of the small numbers of subjects in the IBD group and subgroups and because the subjects were unevenly distributed for the variables listed above, the findings were interpreted with caution.

Two-tailed t-tests performed on the OSIQ's 11 subscale standard score means and standard deviation scores indicated no differences in self-image between the normative and IBD samples and between the IBD subgroups and normative sample. However, the IBD females reported more body image concerns, not unexpectedly, primarily related to concerns about health, and more concerns about their sexuality and sexual maturation, than the other groups investigated. These findings were revealed in the examination and comparison of the participant groups' percent endorsements of selected items specific to the 11 subscales.

Comparisons of percent endorsements of selected subscale-specific items indicated notable differences in self-image between the normative sample and the IBD samples with and without growth retardation. The findings suggest that the presence of IBD alone does not appear to have a negative influence on adolescent self-image and that if it does have an influence it must be positive. This postulation is made because the non-growth retarded adolescents revealed considerably better or somewhat better adjustment than the norm in every subscale measured and considerably better adjustment than the growth retarded sample in every subscale but three.

Percent endorsements of subscale-specific items do suggest that growth retardation may have a negative influence on the self-image of adolescents with IBD. The male adolescents with growth retardation revealed more self-image disturbances than the other samples especially the non-growth retarded sample with respect to their body and self image, sexual attitudes and behavior, emotional harmony, family relations and adaptability to stress, perceptions. The females with growth retardation revealed greater self-image disturbances than all other study participants with respect to their confidence in their sexuality and their sexual maturation perceptions. Their perception of their body image was almost as poor as that of the growth retarded males and poorer than all other subjects' although the non-growth retarded females revealed self-image disturbance in this subscale as well.

The investigator speculates from the data that the presence of growth retardation may have a greater negative effect than IBD or is the factor negatively affecting perception of self among these adolescents. The data reveal that where the growth retarded physically ill adolescents differ from the normals and those without growth retardation is where they might be expected to differ. The findings also suggest that growth retarded males have more self-image disturbances than the females, leading the investigator to speculate that this may be so because short stature and delayed physical development are generally less socially acceptable in the male (Offer et al., 1984a).

### Recommendations for Practice

The findings of this study have shown that for this sample of adolescents, IBD may have a negative effect on the body image and sexual maturation of the females. However, Offer et al. (1981a) also found normative females revealed poorer body image and less openness to their sexuality than the males. This may suggest that the poor self-images of IBD females, with the respect to body image and sexuality, may not necessarily be the effect of the IBD but may reflect normal female concerns and perceptions during adolescence. The implication is that female adolescents, including those with IBD, need the recognition, understanding and sensitivity of friends, family, teachers and health care professionals regarding their concerns in these areas, as well as their help to develop more positive body images and confidence in their sexuality. Of all the health professionals, nurses in hospitals are often in the most proximal, lengthy and intimate daily contact with these adolescents when they are hospitalized or keeping clinic appointments. Armed with the knowledge that females (and males) with IBD may have negative body images and concerns about their sexuality and educated in the use of therapeutic communication techniques, nurses are in an optimal position to develop a rapport with these adolescents on an individual basis. Nurses should utilize opportunities to promote open discussion that may lead to the development of a more positive body image and increased confidence in one's sexuality in the adolescent experiencing disturbances in these measures of self-image.

This study's findings have also suggested that growth retardation in adolescents with IBD may have a considerable negative effect on self-image in a number of areas: body image, emotional harmony, ability to cope with frustrations in the immediate environment, relations with family and sexual maturation, in descending order of degree of negative effect in the males and sexual maturation and body image, in descending order of degree of negative effect in the females. A significant correlation has been found between the positive self-image of adolescents and mental health, physical health, positive feelings and attitudes towards family, a well-developed capacity for empathy with others, a well-functioning coping system and emotional harmony (Offer et al., 1981a). Therefore, it is important for the health care professionals who most often work with these teenagers, who are chronically, physically ill and have growth retardation, an often visible and stigmatic manifestation of IBD, to recognize that these males and females may have similar and different self-image disturbances.

Nurses, as previously mentioned, are often in the best position to develop a rapport with these teenagers in order to accurately understand how they think and feel about themselves in relation to the specified self-image disturbances. To facilitate the development of an improved self-image in affected adolescents, nurses in hospitals and in the community can relay pertinent information to others who are significant in the lives of these adolescents and who may in some way be affecting



their self-image development. Nurses can assist adolescents to discuss their self-image concerns and issues with significant others, such as parents, teachers and peers who may affect how these adolescents function day-to-day and how they view themselves as a result of their level of functioning.

The involvement of several health disciplines in the care of IBD adolescents indicate the need for a multidisciplinary and team approach that individualizes the assistance provided in helping those adolescents with self-image disturbances. These professionals could develop a counselling program geared to the general self-image disturbances experienced by IBD adolescents with growth retardation but individualized to the specific needs of the adolescent and provided in a non-threatening private setting.

The establishment of same-sex peer support groups may be particularly useful for growth retarded male and female adolescents experiencing sensitive self-image disturbances. The support groups may be particularly effective if led by a qualified older teenager or young adult with IBD and growth retardation who has endured and overcome similar self-image disturbances. These implications for practice are supported by the suggestions for the care of chronically ill adolescents made in Buhlmann and Fitzpatrick's article (1987).

The findings also indicate that there is a need for community health nurses to establish a vehicle for communicating general information about the self-image concerns of IBD adolescents with growth

retardation to other groups whose individuals are significant persons in the lives of these adolescents such as parents, teachers, hospital tutors and guidance counsellors. This vehicle for communicating information is viewed as necessary for the promotion of their knowledge, understanding and sensitivity of these adolescents. The investigator suggests that this information will guide them with respect to when and where to gear their counselling, support and encouragement of these adolescents or, simply, their empathy. For example, parents would be able to use the knowledge that IBD male adolescents with growth retardation may feel they are a burden to their families to initiate communications and potentially improve family relations. Research has shown that as communications between an adolescent and parent improves, the adolescent's self-image improves (Offer, Ostrov & Howard, 1982b).

#### Recommendations for Research

For the results of this study to be more validly generalizable to this population of adolescents, replication of this study using random sampling of a larger sample is indicated. Because random sampling methods are not always possible due to the relatively small size of the population of IBD adolescents, it is indicated, at the least, that larger numbers of subjects be obtained for the growth retarded and non-growth retarded IBD subgroups and that they be more evenly matched for sex, age, type of IBD and other confounding factors such as incidence of bowel surgery, presence of an ileostomy/colostomy and severity of illness at the time of participation in the study. In

addition, larger numbers of study participants in the IBD group and subgroups would allow for the examination of differences and similarities in self-image among younger and older male and female categories. A replication study that has taken into account these suggestions may lend more credence to or deny the nature of the effect of IBD and growth retardation on the self-image of adolescents as found in this investigation. Results of the application of these suggestions may also lend support to or refute a) hypotheses such as those proposing that growth retarded males have more self-image disturbances than growth retarded females or normal height adolescents and do so because of the social unacceptability of short stature in males and b) hypotheses suggesting that IBD is a psychosomatic illness or that individuals with IBD tend to become psychologically impaired as a consequence of the disease. The inclusion of a normative sample obtained by the investigator and a sample of growth retarded but otherwise healthy males and females to be utilized as a control group in the examination of the effect of growth retardation on self-image would also improve the study and lend evidence to or refute hypotheses such as these and the study's findings.

Random sampling of a larger IBD sample and an inclusion of the investigator's own normative sample would also allow for the availability of a complete list of raw and standard scores for all study samples and therefore, for more appropriate and valid use of tests of difference such as the t-test, in this study.

Although the study's findings suggest that adolescents with IBD have positive self-images and those with growth retardation may have a number of self-image disturbances, a qualitative study investigating the experience of living with IBD, in terms of self-image, may uncover not only the phenomenology of adolescent life with IBD but also particular thematic self-image disturbances specific to male, female, growth retarded and non-growth retarded individuals with IBD. This kind of study may also validate or deny this study's findings regarding the self-image of adolescents with IBD, that is, that it is the growth retardation and not IBD alone that appears to lead to self-image disturbances among specific groups within this population.

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## APPENDIX A

Internal Consistency of Each OSIQ Subscale Score for Four Separate Normal Populations

Subscale	Groups			
	Younger Males N=326	Older Males N=192	Younger Females n=278	Older Females n=154
<u>Psychological Self</u>				
Impulse Control	.52	.69	.76	.70
Emotional Tone	.40	.79	.78	.81
Body and Self Image	.38	.62	.66	.56
<u>Social Self</u>				
Social Relationships	.61	.76	.78	.71
Morals	.60	.51	.56	.36
Vocat./Educ. Goals	.57	.69	.61	.61
<u>Sexual Self</u>				
Sexual Attitudes	.43	.55	.67	.48
<u>Familial Self</u>				
Family Relationships	.57	.83	.87	.88
<u>Coping Self</u>				
Mastery of External World	.48	.58	.60	.63
Psychopathology	.66	.73	.75	.68
Superior Adjustment	.52	.60	.60	.61

Note: Samples were collected in Chicago Suburbs and areas in 1962, 1966 and 1969.

## APPENDIX A

Percent Endorsements of Selected Items for Emotional Tone for Study Groups by Gender

Item	Groups											
	Normal *+			IBD subgroups combined **			IBD without GR ***			IBD with GR ****		
	M <sup>a</sup>	F	MF	M	F	MF	M	F	MF	M	F	MF
23. I feel inferior to most people I know	18 <sup>b</sup>		16	15		13	0		0	29		27
66. I feel so very lonely	16		20	15		8	0		0	29		18
54. I am so very anxious	53	52	52	69	55	63	67	57	62	71	50	64
12. I feel tense most of the time	23	25	24	23	18	21	17	14	15	29	25	27
32. Most of the time I am happy	45		41	92		96	100		100	86		91
68. I enjoy life	90		90	92		88	100		100	86		73
38. My feelings are easily hurt	38		52	54		58	83		69	29		45

+ Offer et al.'s normative sample findings included by permission (1981a).

\* N = 1385; \*\* N = 24; \*\*\* n = 13, \*\*\*\* n = 11

Note: <sup>a</sup> M, F and MF refer to males, females and males and females.

<sup>b</sup> Indicates that 18% of the males in the normative group answered 1, 2 or 3 on the Likert scale, thereby agreeing with the statement in item #23. Percent endorsement refers to the percent of individuals who agree with the statement in a particular item.

## APPENDIX A

Percent Endorsements of Selected Items for Body and Self Image for Study Groups by Gender

Item	Groups											
	Normal *+			IBD subgroups combined **			IBD without GR ***			IBD with GR ****		
	M	F	MF	M	F	MF	M	F	MF	M	F	MF
27. In the past year I have been very worried about my health	21	25	23	31	64	46	33	57	46	29	75	45
99. I feel strong and healthy	87	85	86	77	55	67	100	71	85	57	25	45
94. When others look at me they must think I am poorly developed		16	16		36	25		29	23		50	27
57. I am proud of my body	78	53	64	85	45	67	100	43	69	71	50	64
90. I frequently feel ugly and unattractive	22	43	34	31	27	29	0	29	15	57	25	45
82. Very often I think I am not at all the person I would like to be	45		45	46		38	17		23	71		55

## APPENDIX A

Percent Endorsements of Selected Items for a) Social Relationships and  
b) Vocational and Educational Goals for Study Groups By Gender

Item	Groups											
	Normal *+			IBD subgroups combined **			IBD without GR ***			IBD with GR ****		
	M	F	MF	M	F	MF	M	F	MF	M	F	MF
a) Social Relationships												
13. I usually feel out of place at picnics and parties	23		22	31		21	0		8	57		36
86. If others disapprove of me I get terribly upset	34	44	40	23	64	42	0	57	31	43	75	55
b) Vocational and Educational Goals												
14. I feel that working is too much responsibility for me	6	7	7	15	27	21	0	43	23	29	0	18
115. School and studying mean very little to me	21		18	15		13	0		8	29		18

## APPENDIX A

Percent Endorsements of Selected Items for Sexual Attitudes for Normal and IBD Samples By Gender

Item	Groups											
	Normal *+			IBD subgroups combined **			IBD without GR ***			IBD with GR ****		
	M	F	MF	M	F	MF	M	F	MF	M	F	MF
122. I often think about sex		45	53		36	58		57	69		0	45
97. Thinking or talking about sex frightens me		7	7		27	13		14	8		50	18
16. It is very hard for a teenager to know how to handle sex in a right way		24	21		64	38		71	46		50	27
91. Sexually, I am way behind		16	16 16		38	36 38		17	29 23		57	50 55
117. Sexual experiences give me pleasure		69	54 61		77	36 58		100	57 77		57	0 36
119. Having a girl/ boyfriend is important to me		74	74		64	75		57	77		75	73

## Percent Endorsements for Sexual Attitudes Continued

Item	Groups											
	Normal *+			IBD subgroups combined **			IBD without GR ***			IBD with GR ****		
	M	F	MF	M	F	MF	M	F	MF	M	F	MF
77. I think that girls/boys find me attractive												
	61	64		55	67		57	69		50	64	

## APPENDIX A

Percent Endorsements of Selected Items for Family Relationships for  
Normal and IBD Samples by Gender

Item	Normal *+			IBD subgroups ** combined			IBD without GR ***			IBD with GR ****		
	M	F	MF	M	F	MF	M	F	MF	M	F	MF
4. I think that I will be a source of pride to my parents in the future	82		80	85		88	83		85	86		91
15. My parents will be disappointed in me in the future	6		7	15		17	0		8	29		27
112. Most of the time my parents are satisfied with me	87		86	77		88	100		100	57		73
85. Usually I feel that I am a bother at home	22		23	38		29	33		31	43		27
102. I try to stay away from home most of the time	27		29	62		42	50		38	71		45

## APPENDIX A

Percent Endorsements of Selected Items for a) Mastery of the External World and b) Psychopathology for Normal and IBD Samples By Gender

Item	Normal *+			IBD subgroups **combined			IBD without GR ***			IBD with GR ****		
	M	F	MF	M	F	MF	M	F	MF	M	F	MF
a) Mastery of the External World												
129. I repeat things continuously to be sure that I am right	45	39	42	69	64	67	67	71	69	71	50	64
19. If I put my mind to it I can learn almost anything	87		85	77		88	83		92	71		82
128. I am fearful of growing up	19	26	23	23	26	29	17	43	31	29	25	27
b) Psychopathology												
45. I feel empty emotionally most of the time	21		19	38		21	33		15	43		27
108. When I enter a new room I have a strange and funny feeling	34		33	54		38	33		23	71		55



## APPENDIX B

## LETTER OF EXPLANATION TO THE HOSPITAL

Dear

I am a registered nurse currently enrolled in the graduate program at the University of British Columbia, School of Nursing. I have elected to complete a research study in partial fulfillment for my Master of Science in Nursing degree.

The purpose of my investigation is to determine the impact of inflammatory bowel disease on adolescent self-image. Please find enclosed a copy of my protocol which outlines the rationale and instrument for my study. I am writing this letter to request permission to select adolescent patients with inflammatory bowel disease, registered with the gastroenterology clinic and who are patients of Dr. Davidson and Dr. Hassall, to be included in this study. I realize that I will be requested to submit my research proposal to a research committee for approval. Presently though, I require a letter indicating the possibility of permission to use B. C. Children's Hospital for my research, which must accompany my proposal to the U.B.C. Research Ethics Committee. I realize permission is conditional upon the approval of my proposal by the Ethics and Research Committees at U. B. C. and B. C. Children's Hospital.

Upon completion of my study, I would be pleased to share my results with members of the hospital staff.

I thank you in advance for your consideration of this request. I would appreciate a reply at your earliest convenience.

Yours sincerely,

Helga A. Marshall, B.Sc.N.

APPENDIX B  
LETTER TO THE FAMILY PHYSICIAN

Dear

I am a registered nurse currently enrolled in the graduate program at the University of British Columbia, School of Nursing. In pursuit of my interest in adolescent patients, my thesis will explore the impact of inflammatory bowel disease on adolescent self-image. Permission to proceed with the study has been granted by the U.B.C. Behavioural Sciences Screening Committee for Research and the B. C. Children's Hospital Research Review Committee.

The research subjects will be asked to complete a self-assessment questionnaire. The study will be fully explained to the patient. In the event that a subject is under the age of 16 years, a parental consent will be obtained. Safeguards have been taken to guarantee the subject's anonymity and/or confidentiality both in terms of their participation and responses. No individual will be identified in the final report.

I hope this study meets with your approval, but if you do not wish your patient \_\_\_\_\_ to participate, please let me know by \_\_\_\_\_

Yours sincerely,

Helga A. Marshall, B.Sc.N.

## APPENDIX B

## LETTER OF EXPLANATION TO THE GASTROENTEROLOGIST

Dear :

I am a registered nurse currently enrolled in the graduate program at the University of British Columbia, School of Nursing. In pursuit of my interest in adolescent patients, my thesis will explore the impact of inflammatory bowel disease on adolescent self-image. Permission to proceed with the study is currently being reviewed by the U.B.C. Behavioural Sciences Screening Committee for Research and the B. C. Children's Hospital Research Review Committee.

Subjects will be selected in consultation with Anne Crozier, the clinical nurse specialist in gastroenterology. They will be contacted initially by explanatory letter from the investigator. Subjects will be asked to complete a self-assessment questionnaire. The study will be fully explained to the patient and in the event that a subject is under the age of 16 years, a parental consent will be obtained. Safeguards have been taken to guarantee the subject's anonymity and/or confidentiality both in terms of their participation and responses. No individual will be identified in the final report.

The purpose of this letter is to inform you of this study and to request your permission to include your patients who meet the sampling criteria identified in the proposal for this study. A drafted consent form is included with the research proposal, as an example. Signing this consent form will suggest your approval of the study and permission to study patients identified as suitable. I expect to begin data collection in May 1986 at which time I will contact you in person.

I look forward to your participation in this study and thank you in advance for your consideration and assistance.

Yours sincerely,

Helga A. Marshall, B.Sc.N.

## APPENDIX B

## GASTROENTEROLOGIST'S CONSENT

I, \_\_\_\_\_, give consent for Helga Marshall, a graduate student at the School of Nursing, University of British Columbia, to include patients identified for the study of the influence of a chronic illness, namely inflammatory bowel disease, on adolescent self-image.

I understand the purpose and design of the study and am assured that there will be no risk to the patient. I understand that the patient's written consent will be obtained and that parental consent will also be obtained if the respondent is under 16 years of age. I have been assured of the anonymity and/or confidentiality of both the respondent and myself.

DATED at Vancouver, this \_\_\_\_ day of \_\_\_\_\_, 1986.

Signed: \_\_\_\_\_

## APPENDIX B

## EXPLANATION TO PARENT OF ADOLESCENT WITH IBD

Dear Mr./Mrs. . My name is Helga Marshall. I am a graduate nursing student at the University of British Columbia, School of Nursing. I am currently conducting a research study in partial fulfillment of the requirements for a Master of Science in Nursing degree. I wish to study the influence that Crohn's disease/ulcerative colitis has on the way adolescents see, think and feel about themselves. Although this study will hold no risk or direct benefit for your son/daughter, it may benefit others like him/her in the future. Refusal to take part in the study will not interfere with the care that your son/daughter receives at the British Columbia Children's Hospital.

Your son/daughter has been asked to complete a questionnaire. He/she may refuse to answer any questions and is free to withdraw from the study at any time. All information will be kept confidential. The questionnaire will be coded by number and not by name. Any published findings will maintain the anonymity of the participants. Your son/daughter's physician at the B. C. Children's Hospital has been informed of the details of the study and has given his approval for your son/daughter's participation. However, the decision to participate belongs to you and your son/daughter. For the credibility of the study it is important that your son/daughter answer the questions in the questionnaire on his/her own, without outside influence. It will take approximately 40 minutes of his/her time.

If your son/daughter is under 16 years of age and you consent to his/her participation in the study, would you please sign the form enclosed indicating your consent and return the form with your son/daughter's completed questionnaire in the stamped and addressed envelope provided.

I appreciate your interest in this study and thank you in advance for the contribution you will be making towards research in this area by granting permission for your son/daughter's participation.

Yours sincerely,

Helga A. Marshall, B.Sc.N

## APPENDIX B

## PARENTAL CONSENT - ADOLESCENT WITH IBD

I, \_\_\_\_\_ consent/do not consent for \_\_\_\_\_ to participate in a study conducted by Helga Marshall to investigate the influence of inflammatory bowel disease (Crohn's disease or ulcerative colitis) on adolescent self-image. I understand that the study is being conducted in order to gain further insight into the impact of a chronic illness on adolescent self-image and that \_\_\_\_\_ wishes to participate.

I understand that \_\_\_\_\_ will be asked to complete a questionnaire at which time I will not be immediately present. I understand that the information provided by \_\_\_\_\_ will be kept confidential and any findings published will be kept anonymous.

I understand that \_\_\_\_\_ is not obligated to participate and that it will be explained to him/her that he/she is free to withdraw from the study at any time. I understand that \_\_\_\_\_'s participation will neither be of risk nor direct benefit to him/her but may benefit others like him/her in the future. I understand that his/her participation in this study will not affect his/her future care at the British Columbia Children's Hospital.

DATED this \_\_\_\_ day of \_\_\_\_\_, 1986.

Signed: \_\_\_\_\_

## APPENDIX B

## ADOLESCENT CONSENT - ADOLESCENT WITH IBD

I, \_\_\_\_\_ consent to participate in an investigation conducted by Helga Marshall to study the influence of inflammatory bowel disease (Crohn's disease or ulcerative colitis) on the way I see, think and feel about myself. I understand that the study will be of no risk or direct benefit to me but the results may lead to improving the nursing care of others like me in the future.

I understand that I will be asked to complete a questionnaire at the hospital or in my home. I may refuse to answer any questions as I see fit.

I understand that I am not obliged to participate and that I am free to withdraw from the study at any time and that my future care will not be adversely affected.

I understand that any information given by me will be kept confidential and that my name will not appear in the final report.

DATED this \_\_\_\_ day of \_\_\_\_\_, 1986.

Signed: \_\_\_\_\_

APPENDIX C  
DEMOGRAPHIC DATA

Age	_____
Age Category	_____
Sex	_____
Height	_____
Percentile	_____
Weight	_____
Percentile	_____
Bone Age	_____
Growth Retardation	_____
DDSSC Presence	_____
Bowel Surgery	_____
Ileostomy/Colostomy	_____
Working Full time	_____
Years lived in Canada	_____
New Canadian	_____
Ethnic origin	_____
Socio-economic status	_____
No. of parent(s) employed outside the home	_____



## APPENDIX C

### THE OFFER SELF-IMAGE QUESTIONNAIRE\*

THIS QUESTIONNAIRE IS USED FOR SCIENTIFIC PURPOSES. THERE ARE NO RIGHT OR WRONG ANSWERS.

AFTER CAREFULLY READING EACH OF THE STATEMENTS ON THE FOLLOWING PAGES PLEASE PLACE YOUR CHOICE OF ANSWER, AS A YES OR NO, IN THE SPACE ON THE FAR RIGHT HAND SIDE OF THE PAGE BESIDE THE STATEMENT YOU JUST READ. PLEASE CIRCLE THE NUMBER ON THE ANSWER SHEET THAT INDICATES HOW WELL THE STATEMENT DESCRIBES YOU; THE NUMBERS CORRESPOND WITH CATEGORIES OF ANSWERS FROM "DESCRIBES ME VERY WELL" (1) TO "DOES NOT DESCRIBE ME AT ALL" (6). PLEASE CHOOSE ONLY ONE ANSWER FOR EACH STATEMENT AND WRITE ITS NUMBER IN THE SPACE PROVIDED ON THE FAR RIGHT HAND SIDE OF THE PARAGRAPH.

EXAMPLE

ANSWER

STATEMENT: 1. I AM AN ADOLESCENT.

1. 1

CHOICE OF ANSWERS:

1-DESCRIBES ME VERY WELL	3-DESCRIBES ME FAIRLY WELL	5-DOES NOT REALLY DESCRIBE ME
2-DESCRIBES ME WELL	4-DOES NOT QUITE DESCRIBE ME	6-DOES NOT DESCRIBE ME AT ALL

PLEASE RESPOND TO ALL ITEMS IF POSSIBLE.

THANK YOU.

\* Offer, D., Ostrov, E., & Howard, K.I. (1982a)

# APPENDIX C

## THE OFFER SELF-IMAGE QUESTIONNAIRE

1--DESCRIBES ME VERY WELL      3--DESCRIBES ME FAIRLY WELL      5--DOES NOT REALLY DESCRIBE ME  
2--DESCRIBES ME WELL      4--DOES NOT QUITE DESCRIBE ME      6--DOES NOT DESCRIBE ME AT ALL

- 
1. I CARRY MANY GRUDGES. 1\_\_\_\_\_
  2. WHEN I AM WITH PEOPLE I AM AFRAID THAT SOMEONE WILL MAKE FUN OF ME. 2\_\_\_\_\_
  3. MOST OF THE TIME I THINK THAT THE WORLD IS AN EXCITING PLACE TO LIVE IN. 3\_\_\_\_\_
  4. I THINK THAT I WILL BE A SOURCE OF PRIDE TO MY PARENTS IN THE FUTURE. 4\_\_\_\_\_
  5. I WOULD NOT HURT SOMEONE JUST FOR THE "HECK OF IT." 5\_\_\_\_\_
  6. THE RECENT CHANGES IN MY BODY HAVE GIVEN ME SOME SATISFACTION. 6\_\_\_\_\_
  7. I AM GOING TO DEVOTE MY LIFE TO HELPING OTHERS. 7\_\_\_\_\_
  8. I "LOSE MY HEAD" EASILY. 8\_\_\_\_\_
  9. MY PARENTS ARE ALMOST ALWAYS ON THE SIDE OF SOMEONE ELSE, e.g. MY BROTHER OR SISTER. 9\_\_\_\_\_
  10. THE OPPOSITE SEX FINDS ME A BORE. 10\_\_\_\_\_
  11. IF I WOULD BE SEPARATED FROM ALL THE PEOPLE I KNOW, I FEEL THAT I WOULD NOT BE ABLE TO MAKE A GO OF IT. 11\_\_\_\_\_
  12. I FEEL TENSE MOST OF THE TIME. 12\_\_\_\_\_
  13. I USUALLY FEEL OUT OF PLACE AT PICNICS AND PARTIES. 13\_\_\_\_\_
  14. I FEEL THAT WORKING IS TOO MUCH RESPONSIBILITY FOR ME. 14\_\_\_\_\_
  15. MY PARENTS WILL BE DISAPPOINTED IN ME IN THE FUTURE. 15\_\_\_\_\_
  16. IT IS VERY HARD FOR A TEENAGER TO KNOW HOW TO HANDLE SEX IN A RIGHT WAY. 16\_\_\_\_\_
  17. AT TIMES I HAVE FITS OF CRYING AND/OR LAUGHING THAT I SEEM UNABLE TO CONTROL. 17\_\_\_\_\_
  18. I AM GOING TO DEVOTE MY LIFE TO MAKING AS MUCH MONEY AS I CAN. 18\_\_\_\_\_
  19. IF I PUT MY MIND TO IT, I CAN LEARN ALMOST ANYTHING. 19\_\_\_\_\_
  20. ONLY STUPID PEOPLE WORK. 20\_\_\_\_\_
  21. VERY OFTEN I FEEL THAT MY FATHER IS NO GOOD. 21\_\_\_\_\_
  22. I AM CONFUSED MOST OF THE TIME. 22\_\_\_\_\_
-

## APPENDIX C

## THE OFFER SELF-IMAGE QUESTIONNAIRE\*

1--DESCRIBES ME VERY WELL    3--DESCRIBES ME FAIRLY WELL    5--DOES NOT REALLY DESCRIBE ME  
 2--DESCRIBES ME WELL    4--DOES NOT QUITE DESCRIBE ME    6--DOES NOT DESCRIBE ME AT ALL

- 
23. I FEEL INFERIOR TO MOST PEOPLE I KNOW. 23\_\_\_\_
24. UNDERSTANDING MY PARENTS IS BEYOND ME. 24\_\_\_\_
25. I DO NOT LIKE TO PUT THINGS IN ORDER AND MAKE SENSE OF THEM. 25\_\_\_\_
26. I CAN COUNT ON MY PARENTS MOST OF THE TIME. 26\_\_\_\_
27. IN THE PAST YEAR I HAVE BEEN VERY WORRIED ABOUT MY HEALTH. 27\_\_\_\_
28. DIRTY JOKES ARE FUN AT TIMES. 28\_\_\_\_
29. I OFTEN BLAME MYSELF EVEN WHEN I AM NOT AT FAULT. 29\_\_\_\_
30. I WOULD NOT STOP AT ANYTHING IF I FELT I WAS DONE WRONG. 30\_\_\_\_
31. MY SEX ORGANS ARE NORMAL. 31\_\_\_\_
32. MOST OF THE TIME I AM HAPPY. 32\_\_\_\_
33. I AM GOING TO DEVOTE MYSELF TO MAKING THE WORLD A BETTER PLACE TO LIVE IN. 33\_\_\_\_
34. I CAN TAKE CRITICISM WITHOUT RESENTMENT. 34\_\_\_\_
35. MY WORK, IN GENERAL, IS AT LEAST AS GOOD AS THE WORK OF THE GIRL NEXT TO ME. 35\_\_\_\_
36. SOMETIMES I FEEL SO ASHAMED OF MYSELF THAT I JUST WANT TO HIDE IN A CORNER AND CRY. 36\_\_\_\_
37. I AM SURE THAT I WILL BE PROUD ABOUT MY FUTURE PROFESSION. 37\_\_\_\_
38. MY FEELINGS ARE EASILY HURT. 38\_\_\_\_
39. WHEN A TRAGEDY OCCURS TO ONE OF MY FRIENDS, I FEEL SAD TOO. 39\_\_\_\_
40. I BLAME OTHERS EVEN WHEN I KNOW THAT I AM AT FAULT TOO. 40\_\_\_\_
41. WHEN I WANT SOMETHING, I JUST SIT AROUND WISHING I COULD HAVE IT. 41\_\_\_\_
42. THE PICTURE I HAVE OF MYSELF IN THE FUTURE SATISFIES ME. 42\_\_\_\_
43. I AM A SUPERIOR STUDENT IN SCHOOL. 43\_\_\_\_
44. I FEEL RELAXED UNDER NORMAL CIRCUMSTANCES. 44\_\_\_\_
-

# APPENDIX C

## THE OFFER SELF-IMAGE QUESTIONNAIRE

1--DESCRIBES ME VERY WELL      3--DESCRIBES ME FAIRLY WELL      5--DOES NOT REALLY DESCRIBE ME  
 2--DESCRIBES ME WELL      4--DOES NOT QUITE DESCRIBE ME      6--DOES NOT DESCRIBE ME AT ALL

- 
45. I FEEL EMPTY EMOTIONALLY MOST OF THE TIME. 45\_\_\_\_
46. I WOULD RATHER SIT AROUND AND LOAF THAN WORK. 46\_\_\_\_
47. EVEN IF IT WERE DANGEROUS, I WOULD HELP SOMEONE WHO IS IN TROUBLE. 47\_\_\_\_
48. TELLING THE TRUTH MEANS NOTHING TO ME. 48\_\_\_\_
49. OUR SOCIETY IS A COMPETITIVE ONE AND I AM NOT AFRAID OF IT. 49\_\_\_\_
50. I GET VIOLENT IF I DON'T GET MY WAY. 50\_\_\_\_
51. MOST OF THE TIME MY PARENTS GET ALONG WELL WITH EACH OTHER. 51\_\_\_\_
52. I THINK THAT OTHER PEOPLE JUST DO NOT LIKE ME. 52\_\_\_\_
53. I FIND IT VERY DIFFICULT TO ESTABLISH NEW FRIENDSHIPS. 53\_\_\_\_
54. I AM SO VERY ANXIOUS. 54\_\_\_\_
55. WHEN MY PARENTS ARE STRICT, I FEEL THAT THEY ARE RIGHT, EVEN IF I GET ANGRY. 55\_\_\_\_
56. WORKING CLOSELY WITH ANOTHER GIRL NEVER GIVES ME PLEASURE. 56\_\_\_\_
57. I AM PROUD OF MY BODY. 57\_\_\_\_
58. AT TIMES I THINK ABOUT WHAT KIND OF WORK I WILL DO IN THE FUTURE. 58\_\_\_\_
59. EVEN UNDER PRESSURE I MANAGE TO REMAIN CALM. 59\_\_\_\_
60. WHEN I GROW UP AND HAVE A FAMILY, IT WILL BE IN AT LEAST A FEW WAYS SIMILAR TO MY OWN. 60\_\_\_\_
61. I OFTEN FEEL THAT I WOULD RATHER DIE, THAN GO ON LIVING. 61\_\_\_\_
62. I FIND IT EXTREMELY HARD TO MAKE FRIENDS. 62\_\_\_\_
63. I WOULD RATHER BE SUPPORTED FOR THE REST OF MY LIFE THAN WORK. 63\_\_\_\_
64. I FEEL THAT I HAVE A PART IN MAKING FAMILY DECISIONS. 64\_\_\_\_
65. I DO NOT MIND BEING CORRECTED, SINCE I CAN LEARN FROM IT. 65\_\_\_\_
-

# APPENDIX C THE OFFER SELF-IMAGE QUESTIONNAIRE

1--DESCRIBES ME VERY WELL      3--DESCRIBES ME FAIRLY WELL      5--DOES NOT REALLY DESCRIBE ME  
 2--DESCRIBES ME WELL      4--DOES NOT QUITE DESCRIBE ME      6--DOES NOT DESCRIBE ME AT ALL

- 
- |  |         |
|--|---------|
| 66. I FEEL SO VERY LONELY.   | 66_____ |
| 67. I DO NOT CARE HOW MY ACTIONS AFFECT OTHERS AS LONG AS I GAIN SOMETHING.  | 67_____ |
| 68. I ENJOY LIFE.  | 68_____ |
| 69. I KEEP AN EVEN TEMPER MOST OF THE TIME.  | 69_____ |
| 70. A JOB WELL DONE GIVES ME PLEASURE.   | 70_____ |
| 71. MY PARENTS ARE USUALLY PATIENT WITH ME.  | 71_____ |
| 72. I SEEM TO BE FORCED TO IMITATE THE PEOPLE I LIKE.  | 72_____ |
| 73. VERY OFTEN PARENTS DO NOT UNDERSTAND A PERSON BECAUSE THEY HAD AN UNHAPPY CHILDHOOD.                                   | 73_____ |
| 74. FOR ME GOOD SPORTSMANSHIP IN SCHOOL IS AS IMPORTANT AS WINNING A GAME.   | 74_____ |
| 75. I PREFER BEING ALONE THAN WITH KIDS MY AGE.  | 75_____ |
| 76. WHEN I DECIDE TO DO SOMETHING, I DO IT.  | 76_____ |
| 77. I THINK THAT BOYS FIND ME ATTRACTIVE.  | 77_____ |
| 78. OTHER PEOPLE ARE NOT AFTER ME TO TAKE ADVANTAGE OF ME.   | 78_____ |
| 79. I FEEL THAT THERE IS PLENTY I CAN LEARN FROM OTHERS.   | 79_____ |
| 80. I DO NOT ATTEND SEXY SHOWS.  | 80_____ |
| 81. I FEAR SOMETHING CONSTANTLY.   | 81_____ |
| 82. VERY OFTEN I THINK THAT I AM NOT AT ALL THE PERSON I WOULD LIKE TO BE.   | 82_____ |
| 83. I LIKE TO HELP A FRIEND WHENEVER I CAN.  | 83_____ |
| 84. IF I KNOW THAT I WILL HAVE TO FACE A NEW SITUATION, I WILL TRY IN ADVANCE TO FIND OUT AS MUCH AS IS POSSIBLE ABOUT IT. | 84_____ |
| 85. USUALLY I FEEL THAT I AM A BOTHER AT HOME.   | 85_____ |
| 86. IF OTHERS DISAPPROVE OF ME I GET TERRIBLY UPSET.   | 86_____ |
| 87. I LIKE ONE OF MY PARENTS MUCH BETTER THAN THE OTHER.   | 87_____ |
-

## APPENDIX C

## THE OFFER SELF-IMAGE QUESTIONNAIRE

1--DESCRIBES ME VERY WELL      3--DESCRIBES ME FAIRLY WELL      5--DOES NOT REALLY DESCRIBE ME  
 2--DESCRIBES ME WELL      4--DOES NOT QUITE DESCRIBE ME      6--DOES NOT DESCRIBE ME AT ALL

- 
88. BEING TOGETHER WITH OTHER PEOPLE GIVES ME A GOOD FEELING. 88\_\_\_\_
89. WHENEVER I FAIL IN SOMETHING, I TRY TO FIND OUT WHAT I CAN DO IN ORDER TO AVOID ANOTHER FAILURE. 89\_\_\_\_
90. I FREQUENTLY FEEL UGLY AND UNATTRACTIVE. 90\_\_\_\_
91. SEXUALLY I AM WAY BEHIND. 91\_\_\_\_
92. IF YOU CONFIDE IN OTHERS YOU ASK FOR TROUBLE. 92\_\_\_\_
93. EVEN THOUGH I AM CONTINUOUSLY ON THE GO, I SEEM UNABLE TO GET THINGS DONE. 93\_\_\_\_
94. WHEN OTHERS LOOK AT ME THEY MUST THINK THAT I AM POORLY DEVELOPED. 94\_\_\_\_
95. MY PARENTS ARE ASHAMED OF ME. 95\_\_\_\_
96. I BELIEVE I CAN TELL THE REAL FROM THE FANTASTIC. 96\_\_\_\_
97. THINKING OR TALKING ABOUT SEX FRIGHTENS ME. 97\_\_\_\_
98. I AM AGAINST GIVING SO MUCH MONEY TO THE POOR. 98\_\_\_\_
99. I FEEL STRONG AND HEALTHY. 99\_\_\_\_
100. EVEN WHEN I AM SAD I CAN ENJOY A GOOD JOKE. 100\_\_\_\_
101. THERE IS NOTHING WRONG WITH PUTTING ONESELF BEFORE OTHERS. 101\_\_\_\_
102. I TRY TO STAY AWAY FROM HOME MOST OF THE TIME. 102\_\_\_\_
103. I FIND LIFE AN ENDLESS SERIES OF PROBLEMS--WITHOUT SOLUTION IN SIGHT. 103\_\_\_\_
104. AT TIMES I FEEL LIKE A LEADER AND FEEL THAT OTHER KIDS CAN LEARN SOMETHING FROM ME. 104\_\_\_\_
105. I FEEL THAT I AM ABLE TO MAKE DECISIONS. 105\_\_\_\_
106. I HAVE BEEN CARRYING A GRUDGE AGAINST MY PARENTS FOR YEARS. 106\_\_\_\_
107. I AM CERTAIN THAT I WILL NOT BE ABLE TO ASSUME RESPONSIBILITIES FOR MYSELF IN THE FUTURE. 107\_\_\_\_
108. WHEN I ENTER A NEW ROOM I HAVE A STRANGE AND FUNNY FEELING. 108\_\_\_\_
109. I FEEL THAT I HAVE NO TALENT WHATSOEVER. 109\_\_\_\_
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# APPENDIX C THE OFFER SELF-IMAGE QUESTIONNAIRE

1-DESCRIBES ME VERY WELL      3-DESCRIBES ME FAIRLY WELL      5-DOES NOT REALLY DESCRIBE ME  
 2-DESCRIBES ME WELL      4-DOES NOT QUITE DESCRIBE ME      6-DOES NOT DESCRIBE ME AT ALL

- 
110. I DO NOT REHEARSE HOW I MIGHT DEAL WITH A REAL COMING EVENT. 110\_\_\_\_\_
111. WHEN I AM WITH PEOPLE I AM BOTHERED BY HEARING STRANGE NOISES. 111\_\_\_\_\_
112. MOST OF THE TIME MY PARENTS ARE SATISFIED WITH ME. 112\_\_\_\_\_
113. I DO NOT HAVE A PARTICULARLY DIFFICULT TIME IN MAKING FRIENDS. 113\_\_\_\_\_
114. I DO NOT ENJOY SOLVING DIFFICULT PROBLEMS. 114\_\_\_\_\_
115. SCHOOL AND STUDYING MEAN VERY LITTLE TO ME. 115\_\_\_\_\_
116. EYE FOR AN EYE AND TOOTH FOR A TOOTH DOES NOT APPLY FOR OUR SOCIETY. 116\_\_\_\_\_
117. SEXUAL EXPERIENCES GIVE ME PLEASURE. 117\_\_\_\_\_
118. VERY OFTEN I FEEL THAT MY MOTHER IS NO GOOD. 118\_\_\_\_\_
119. HAVING A BOYFRIEND IS IMPORTANT TO ME. 119\_\_\_\_\_
120. I WOULD NOT LIKE TO BE ASSOCIATED WITH THOSE KIDS WHO "HIT BELOW THE BELT." 120\_\_\_\_\_
121. WORRYING A LITTLE ABOUT ONE'S FUTURE HELPS TO MAKE IT WORK OUT BETTER. 121\_\_\_\_\_
122. I OFTEN THINK ABOUT SEX. 122\_\_\_\_\_
123. USUALLY I CONTROL MYSELF. 123\_\_\_\_\_
124. I ENJOY MOST PARTIES I GO TO. 124\_\_\_\_\_
125. DEALING WITH NEW INTELLECTUAL SUBJECTS IS A CHALLENGE FOR ME. 125\_\_\_\_\_
126. I DO NOT HAVE MANY FEARS WHICH I CANNOT UNDERSTAND. 126\_\_\_\_\_
127. NO ONE CAN HARM ME JUST BY NOT LIKING ME. 127\_\_\_\_\_
128. I AM FEARFUL OF GROWING UP. 128\_\_\_\_\_
129. I REPEAT THINGS CONTINUOUSLY TO BE SURE THAT I AM RIGHT. 129\_\_\_\_\_
130. I FREQUENTLY FEEL SAD. 130\_\_\_\_\_
-

## APPENDIX D

THE CONSENTS TO PROCEED GIVEN BY TWO PHYSICIANS,  
HEALTH RECORDS AND THE NURSING DEPARTMENT OF THE BRITISH  
COLUMBIA CHILDREN'S HOSPITAL

## APPLICATION TO: IN-HOSPITAL RESEARCH REVIEW COMMITTEE - CHILDREN'S HOSPITAL

The Committee meets the first Tuesday of each month. For prompt consideration of your proposal submit all required documents to Room 1J11 (local 2300) Children's Hospital by the 15th of the month before the Committee is scheduled to meet. If more urgent approval is required, please discuss your project with the In-Hospital Research Review Committee Chairman.

## PROJECTS WHICH DO NOT REQUIRE APPROVAL ARE THOSE WHICH INVOLVE:

1. Quality of care or outcome of therapy studies which are for presentation within the hospital.
2. Case reports.
3. Use of the Medical Records Department for chart reviews which are for "in-house" purposes such as an internal ward round, etc.
4. Undergraduate teaching projects with a limited number of patients.

## PROJECTS WHICH DO REQUIRE APPROVAL OF THIS COMMITTEE ARE THOSE IN WHICH THERE IS:

1. Direct contact with patients or their families. (except as covered above)
2. Any use of hospital facilities, services or patients as part of a research project.

Investigator's Name: HELGA MARSHALLDivision/Department: NURSINGTitle of Project: THE IMPACT OF INFLAMMATORY BOWEL DISEASE ON THE ADOLESCENT SELF-IMAGE

1. Are you applying for a grant to do this project? Yes ☐ No ☒  
If yes please enclose a copy.

If no please enclose at least two pages of typewritten material which will allow us to evaluate the project. These should include a literature review, some comments on the purpose and relevance of the study, some details of methodology particularly regarding data analysis and an explanation of how patients' interests will be protected.

Expected Starting Date: JULY 1986Expected Completion Date: SEPTEMBER 1987

## II. Purpose of Study:

1. Publication in a Journal: \_\_\_\_\_
2. Own study purposes: \_\_\_\_\_
3. Presentation at Meeting: \_\_\_\_\_ Date of Presentation: \_\_\_\_\_
4. Other - Define: THE THESIS IN PARTIAL FULFILLMENT OF A MASTER OF SCIENCE DEGREE IN NURSING AT UNIVERSITY OF BRITISH COLUMBIA

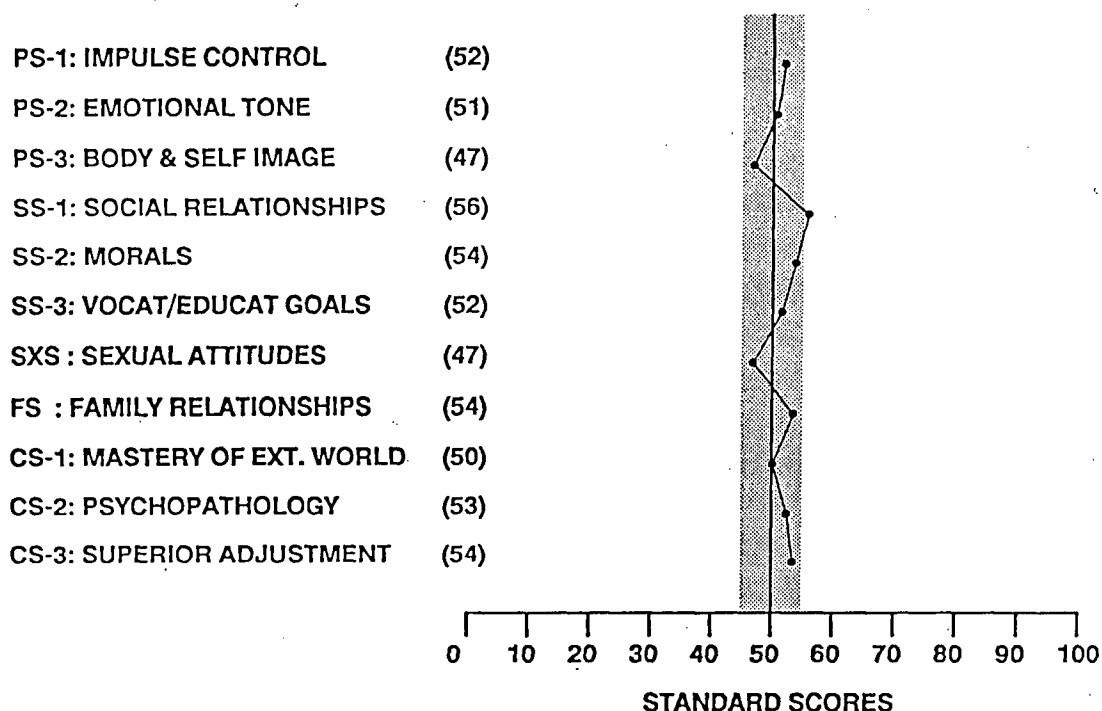
## III. Where applicable please fill out the request for ethical review using the form of the U.B.C. Clinical Screening Committee. Please enclose this.

Are parents of the child you propose to study likely to be approached for participation in this or another study? Amplify if necessary.

NOT TO MY KNOWLEDGE



## APPENDIX E

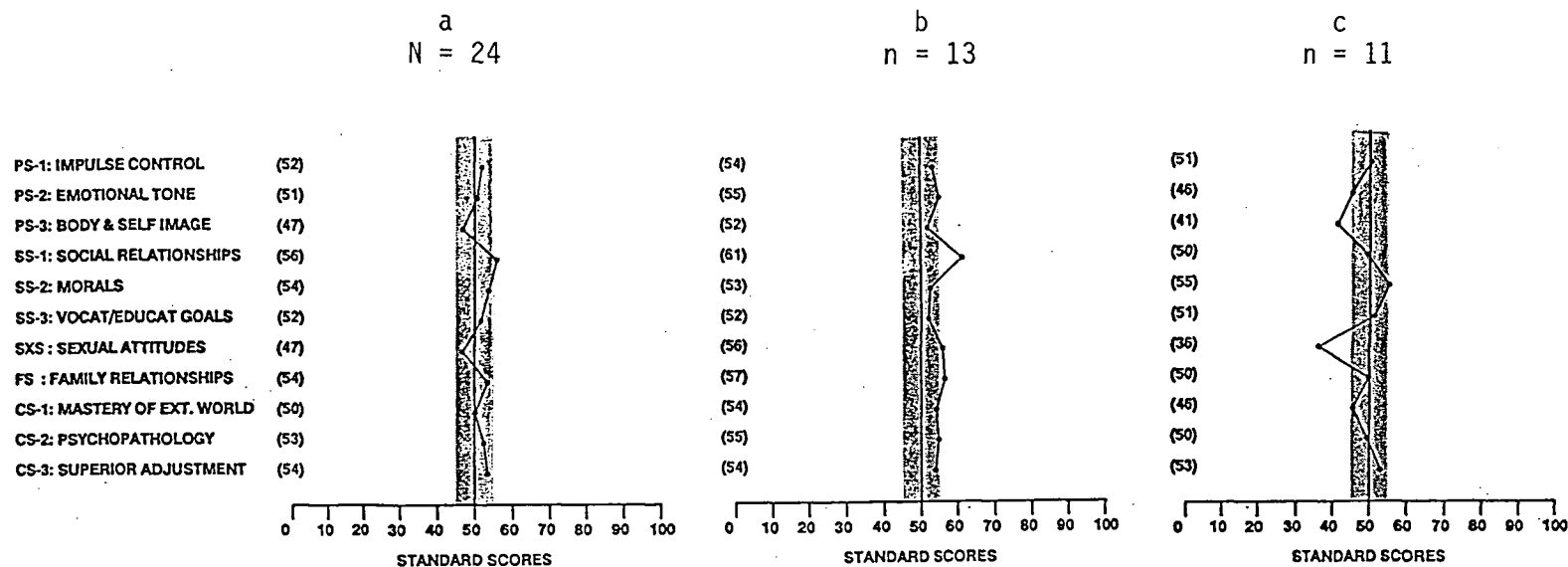


() The numbers in parentheses are standard score values for each scale; 50 represents the average score for a sex, same age normative sample. For each scale the higher the score, the better the teen-ager's adjustment in the area measured by this scale.

Figure 1: The IBD sample's (N=24) standard score means for OSIQ subscales in comparison to Offer et al.'s (1981a) normative sample.

Note: Shaded Areas represent the range in which a sample of "normal" adolescents would score. The samples being compared should contain at least 40 subjects to make the assumption that they are similar or different from the normal sample, if their scores fall within or outside the shaded areas.

## APPENDIX E



0 The numbers in parentheses are standard score values for each scale;  
50 represents the average score for a sex, same age normative sample.  
For each scale the higher the score, the better the teen-ager's  
adjustment in the area measured by this scale.

**Figure 2:** The a) IBD sample's, b) IBD without GR subgroup's and c) IBD with GR subgroup's standard score means for the OSIQ subscales in comparison to Offer et al.'s (1981a) normative sample.

**Note:** Shaded Areas represent the range in which a sample of "normal" adolescents would score. The samples being compared should contain at least 40 subjects to make the assumption that they are similar or different from the normal sample, if their scores fall within or outside the shaded areas.