Chapter II
Review of Related Literature

A review of literature was conducted to better define, conceptualize, and determine a preferred means of assessment of wellness for the purpose of measuring wellness and improving wellness of adolescents from Pune city, India. The following sections are an effort to clarify the wellness constructs from a holistic perspective; review definitions and conceptualizations of wellness within the literature from the past thirty years; and, utilize the most comprehensive studies to identify dimensions and indicators of wellness. Wellness from a Holistic Perspective Holism emerged from the approach used by scientists to study complex phenomena such as organisms and ecosystems (Richards & Bergin, 1997) and a shift in society toward a worldview that is more holistic and relational (Larson, 1999). The term wellness appeared as part of a parallel transformation in the definition of health toward a more holistic perspective that is inter-relational and positive in focus, namely, to examine healthy human functioning (Westgate, 1996). Previous definitions of health held the view that health was concerned with illness and the body was considered in terms of isolated physiological systems (McSherry & Draper, 1998; Panelli & Tipa, 2007). The holistic perspective which is generally agreed upon as the preferred model, completely transformed this notion of health and the wellness movement was perhaps the catalyst that began this transformation (Anspaugh, et al., 2004; Corbin & Pangrazi, 2001; Hales, 2005; Kindig, 2007; Myers et al., 2005; Panelli & Tipa, 2007; Travis & Ryan 2004).

2.1 Wellness
The wellness movement began after the end of world war II largely because society’s health needs changed, advances in medicines and technology meant vaccines and antibiotics reduced the threat of infectious diseases, which until that time had been the leading cause of death (Seaward, 2002). Instead, chronic & lifestyle illnesses (e.g., heart disease, diabetes, cancer), associated with numerous stressors in life and the workplace, become the primary health concepts. Current literature reveals additional terms corresponding and interrelating to the notion of wellness, namely wellbeing, quality of life, life satisfaction, happiness and general satisfaction, the later being a term similarly understood by many cultures and used in international studies. Larson
(1999) states that the world health organization (WHO) was the first to introduce a holistic definition of health as “a state of complete physical and social well-being and not merely the absence of disease and infirmity” (1948) and many conceptualizations of wellness include this central concept. The president’s council on physical fitness & sport for the US has been very involved in defining wellness, and Oliphant (2001) explains that the suggestion by WHO (1997) that health has a positive component leading to the now widely used term wellness”. Dunn (1977) emphasized wellness as a positive state, one that is beyond simply non-sickness, elaborating on the WHO definition by emphasizing the varying degrees of wellness & its interrelated, ever changing aspects he detailed the interconnected nature of wellness of the mind, body, and environment which exits as a dynamic equilibrium as one tries to balance between each.

Egbert (1980) summarized the central areas of wellness as being a combination of having – strong sense of identity, a reality oriented perspective, a clear purpose in life, the recognition of a unifying force in one’s life, the ability to manage one’s affairs creatively and maintain a hopeful view, and the cap ability of inspired, open relationships. Lastly, Witner and Sweeney (1992) defined wellness in term of life tasks that include self-regulation, work, friendship, spirituality and love. Helter (1979) defined six dimensions of wellness: Physical, Emotional, Social, Intellectual, Occupational and Spiritual. All these dimensions are inter-connected. Making a change in one often affects some or all of others for example regular exercise (developing the physical dimension of wellness) can increases feelings of wellbeing & self esteem (emotional wellness), which in turn can increase feeling of confidence in school interaction & one's achievements at work or school (social wellness) every positive change is a step toward total wellness (Fahey, Insel & Roth, 1996). Many researchers have explored and defined the various components or interrelated areas that comprise wellness.

### 2.2 Dimensions of wellness

Wellness involves an awareness of all those dimensions, an understanding of their importance in well-being and a conscious effort to develop and balance them. There are several main dimensions to defining wellness.
Physical Wellness

Physical wellness is maintaining the body’s health by eating well, exercising, avoiding unhealthy habits, making responsible decisions about sex being aware of the symptoms of disease, having regular checkups and taking steps to prevent injuries. Physical wellness encompasses maintenance of cardiovascular fitness, flexibility and strength. Actions to improve physical wellness include maintaining a healthy diet and becoming in tune with how the body responds to various events, stress and feeling by monitoring internal and external physical signs.

Psychological/Emotional wellness:

Emotional wellness in conceptualized as awareness and control of feeling as well as a realistic, positive and developmental view of the self, conflict and life circumstances, coping with stress and the maintenance of fulfilling relationship with others (Adams, Bezner, & Steinhardt; Leafgren, 1990). Emotional wellness is a continuous process that includes awareness and management of feelings and a positive view of self, the world and relationships. Emotional wellness includes experiencing, satisfaction, curiosity and enjoyment in life as well as having – positive anticipation of the future or optimistic outlook.

Social Wellness

Social wellness involves developing meaningful relationship, cultivating – network of supportive friends and family members and contributing to the community. It includes the extent to which a person works toward supporting the community and environment in everyday actions, such as volunteer work (Hetler 1980). Included in the definition of social wellness is getting along with others and being comfortable and willing to express one’s feeling; needs and opinions; supportive fulfilling; and interaction with social environment and contribution to one’s community. (Renger, Midyett, Mas, Erin, McDermott, Papenfuss, Eichling, Baker, Johnson & Hewitt, 2000).

Intellectual Wellness

Keeping an active, curious, open mind with the ability to think critically about issues, pose questions, identify problems and find solutions. It represents a commitment to lifelong learning, and effort to share knowledge with others and development of skills and abilities to achieve a more satisfying life. It is the perception of being energized by an optimal amount of intellectually stimulating activity that involves critical reasoning is also important (Adams, Bezner, & Steinhardt 1997).
Spiritual Wellness
Developing faith in something beyond yourself as well as the capacity for compassion, altruism, joy and forgiveness: finding meaning and purpose in life, whether through religion, meditation, art, nature, service to other, or some other practice. Spirituality can be considered by the border concepts of beliefs and value, whereas religiosity can be thought of as behaviors and the means of implementing one’s spirituality (Westgate, 1996). Spiritual wellness as the process of seeking meaning and purpose in extended (Hettler, 1980).

Occupational wellness
Occupational wellness as the level of satisfaction and enrichment gained by one’s work and the extent of one’s occupation allows for the expression of values. Occupational wellness includes the contribution of one’s unique skills and talent to the community in rewarding meaningful way through paid and unpaid work. Occupational wellness incorporates the balance between occupational and other commitments.

Environmental wellness
Protecting yourself from environmental hazards and minimizing the negative impact of your behavior on the environment. Environmental wellness includes the balance between home and work life as well as the individual’s relationship with nature and community resources.

2.3 Measuring Wellness
There is extensive literature on the definition of wellness but relatively few empirical explorations of the structure of wellness. The integrative and dynamic nature of wellness makes it difficult to control for variables, resulting in the inadequacy of the existing measures (Adams et al., 1997; Renger et al. 2000). Several concepts have well established tools of assessment, such as ‘subjective well-being’, ‘psychological wellbeing’ and ‘wellness’ and ‘wellbeing’ which have been used interchangeably. There was disagreement about this with some authors believing assessment of wellbeing relates to mental health, indicating life satisfaction, positive mental health and happiness (Ryff & Singer, 2006; Myers, Sweeney,& Witmer, 2005; Diener,, Wirtz, Biswas-Diener, Tov, Kim-Prieto, Choi, & Oshi , 2009). Wellness, on the other hand, generally refers to the individual’s functioning and is viewed as the umbrella over-arching well-being (Myers, Sweeney, & Witmer, 2000; Ivey, Ivey, Myers, &
Sweeney, 2005). These are important distinctions to be considered in measuring wellness. Several techniques have been developed to measure wellness at an individual level. These include the Life Assessment Questionnaire (LAQ; National Wellness Institute, 1983) developed to measure the six wellness dimensions outlined by Hettler (1980) and a modification called Test Well (Owen, 1999); the Perceived Wellness Survey (PWS) (Adams et al., 1997); the Optimal Living Profile (OLP; Renger et al.; 2000); and, a Wellness Inventory (WI), developed by Travis (1981) to mention a few. Many wellness assessment tools are being restructured to be more effective. For instance, in the initial study by Myers, Luecht, & Sweeney, 2004), Wellness Evaluation of Lifestyle (WEL) yielded a five factor structure (5F-WEL), assessing 19 components of wellness with 123 items. The revised version (4F-WEL) has a four factor structure, assessing 16 components of wellness in cognitive-emotional, relational, physical, and spiritual components, with 56 items (Myers et al. 2004). Factor analysis of the LAQ (National Wellness Institute 1983, failed to support the six subscales of the instrument, indicating a need for establishing the essential components of wellness instruments. Modification to the ‘Wellness Wheel’ has resulted in the new ‘Indivisible Self Model of Wellness’ (ISWEL) used within the counselling field (Myers et al., 2005). In this model the concept of wellness is defined as “[a] way of life oriented toward optimal health and well-being, in which body, mind, and spirit are integrated by the individual to live life more fully within the human and natural community” (Myers et al., 2000, p. 252). Consideration of socio-ecological factors is evident (local, institutional, global, and chronometrically-time-focused) (Oguz-Duran & Terez, 2009), as well as recognizing indivisible parts of the self which integrate all aspects of wellness within (Ivey et al. 2005). Within this new model Oguz-Duran & Terez (2009) describe five factors: Essential Self, which refers to spirituality, gender identity, cultural identity and self-care; Coping Self, which relates to realistic beliefs, stress management, self-worth and leisure; Social Self, defined by friendship and love; Creative Self, related to intellectual endeavours, emotions, control, humor, and work; and, lastly, Physical Self, referring to nutrition and exercise. This new model emphasizes that improvements in any one dimension positively affect the whole person because of the integrated nature of human functioning. Ivey et al. (2005) use both informal (e.g., clinical interviews, behavioral observations) and formal assessment tools (e.g., Indivisible Self Wellness Inventory; or IS-Wel) to assess personal wellness. They found that the perceptions of the
individual regarding his/her overall wellness, and the level of satisfaction of the person with his/her wellness in specific wellness components, is important in assessing personal wellness. Another factor affecting the wellness assessment tools is the importance of considering and understanding cultural dimensions in regard to the concept of wellness (Pedersen & Ivey, 1993).

The first is the Psychological Well-Being Scale (PWB) which has been found to work adequately. It is brief and covers the overall common elements of psychological well-being. The second is the Feelings Scale (Scale of Positive and Negative Experience - SPANE) which has been found to have several advantages over previous measures of feelings because the descriptors are general, i.e., positive or negative feelings. Also, participants can comment on whether they have pleasant/unpleasant and desirable/undesirable feelings. The scale is expected to reflect well across different cultures. The third measuring scale is not as well-developed yet, that is the Positive Thinking scale. Other researchers have conducted large scale studies using a variety of wellness related instruments. Mookerjee and Beron (2005) examined gender and religion on levels of happiness in 60 industrialized and developing nations, using two sources of information: a) The World Database of Happiness (Veenhoven, 2001) and b) quality of life measuring tools including the Human Development Index, the Gastil Index of Civil Liberty, and Index of Economic Freedom, the Gini Coefficient of Income Inequality, and the Corruption Perception Index. While Quality of Life (QOL) has become central to many research studies the lack of adequate measuring instruments is of concern (Prutkin & Feinstein 2002). These authors propose more effective ways of assessing well-being in areas such as education, health, employment, crime, victimization, political participation and population growth and measurement. Using objective criteria such as Gross Domestic Product or the number of hospitals in a country, and subjective criteria such as satisfaction with life, provides definitive data. The present well-being assessment tools produce confusing results because of the philosophical constructs they were based upon. Therefore, separating Subjective Well-being (research of happiness and/or satisfaction with life) (Diener, 2000) from Personal Well-being (meaning and self-realisation, and the degree to which a person is fully functioning) (Ryan and Deci, 2001) will help alleviate this problem. It is possible to have individuals select the content or weigh the content themselves. Allardt (1989) developed a wellness tool to assess the school setting. He identified four key components of: “having”, i.e., school conditions such as
surroundings and services; “loving”, i.e., social relationships such as group dynamics and teacher student relationship); “being”, i.e., means for self-fulfilment such as value of student’s work and increase self-esteem; and, finally, “health”, i.e., health status such as the presence or absence of illnesses and psychosomatic symptoms. Those who live in urban areas score lower levels of subjective well-being than those in rural areas. In response to this Van Kamp et al. (2003) found a need for the development of a conceptual framework which evaluates physical, spatial and social indicators of wellbeing in terms of urban environmental quality, liveability, sustainability and quality of life. Important elements to consider include liability, character, connection, mobility, personal freedom and diversity, i.e. open space areas, outdoor amenities and ‘walk ability’. Studies report meaningful relationships between crowding and behaviour, housing quality and functioning of children, the amount of green in the neighbourhood and coping behaviour (Evans et al., 2001; Moser & Corroyer, 2001; Kuo, 2001).

A variety of tools can be used to measure Quality of Life (QOL), subjective well-being, and wellness. Skevington et al. (2004) analysed the WHOQO:-BREF, a 26-item version of the WHOQOL-100 assessment, as a valid assessment tool. This tool arises from 10 years of development research on QOL and was tested in 24 countries and available in most of the world’s major languages. Sick and well respondents were sampled and the self-assessment completed as well as socio-demographic and health status questions. Travis & Ryan (2004) have developed a Wellness Workbook which is holistic and user friendly. Categories are defined in terms the public can relate to and there is a wheel to measure current levels of wellness, as well as an index to rate oneself in different categories. The idea is that wellness is on-going and people can work on specific personal goals.

Pacione (2003) examined the usefulness of measuring quality of life or human well-being from a geographical point of view in terms of outputs of value to social scientists and policy makers. He used a five-dimensional model in two exemplar case studies: 1) the geography of the quality of life in Glasgow with particular attention to the conditions of the disadvantaged end of the population; and, 2) the landscapes of fear in the city of Glasgow, areas again especially in locations identified as disadvantaged. This quality of life study proved useful in a number of ways: it provided some baseline measures to examine trends over time; knowledge of how satisfaction and dissatisfaction are distributed through society and across space;
understanding the structure and dependence or interrelationship of various life concerns; understanding how people combine their feelings of individual life concerns into an overall evaluation of quality of life; achieving a better understanding of the causes and conditions which lead to individuals’ feelings of well-being, and of the effects of such feelings on behaviour; identifying problems meriting special attention and possible societal action; identification of normative standards against which actual conditions may be judged in order to inform effective policy formulation; monitoring the effect of policies on the ground; and promoting public participation in the policy-making process.

Dolan et al. (2008) examines economic factors of subjective well-being and notes increasing concern that people do not necessarily spend money on items that are good for them are support them economically. This has implications for measurement tools of economic wellness which until now have been developed based on the notion that spending equates with subjective well-being.

2.4 Defining Adolescence

The word adolescence comes from the Latin verb adolescere, which means “to grow” or “to grow to maturity” (Golinko, 1984). It is defined as a period of growth between childhood and adulthood (De Burn, 1981). There is a general disagreement about when it begins and ends, especially because the period has been prolonged in western culture. Adolescence is generally considered an intermediate stage between childhood and adulthood (Matter, 1984). The transition from one stage to the other is gradual and uncertain, and the time span is not the same for every person, but most adolescents eventually become mature adults. In this sense, adolescence is likened to a bridge between childhood and adulthood over which individuals must pass before they take their places as mature, responsible, creative adults. Maturity is that state at which a person is considered fully developed physically, emotionally, socially, intellectually, and spiritually. The balance of these characteristics is not always achieved. A person may be mature physically but not emotionally. Conversely, there are some individuals who are intellectually quite mature but have not attained full spiritual and moral growth. Puberty can be used in a fairly narrow sense to denote only that age when a person first becomes sexually capable of having children. In a broader sense, puberty is used to denote the several years during which physical changes relative to sexual maturation are taking place: those years during which the
mature primary and secondary sexual characteristics develop. Pubescence should be used synonymously with puberty to denote the whole period during which sexual maturation take place. Literally, it means becoming hairy or downy, describing one of the important physical changes that occur during puberty. So a child is one who is arriving at or has arrived a puberty. The term teenager, in a strict sense, means only those in the teen years: 13 to 19 years of age. However, because children sometimes mature physically before 13 years of age, there are some discrepancies. An 11 year old girl may look and act like a teenager, but a 15 year old boy, if not sexually mature, may still act and look like a child. The word teenager is of fairly recent origin. It first appeared in the Reader’s guide to periodical literature in the 1943-1945 issue. Subsequently, the term has become popular in the lay vocabulary. It is a word to which many youth objects because of its negative emotional connotations: wild, delinquent, incorrigible, immoral. Margaret Mead objects to the term because it is too restrictive in terms of age (13 to 19 years). She objects to it for emotional reason also. There are many different types of teenagers: scholarly, intellectual teenagers; cool teenagers (Rice, 1992).

Adolescent Development

There are many important aspects of adolescent development. For the purpose of this study, adolescent development was defined as predictable growth and was categorized into seven dimensions (physical, psychological/emotional, intellectual, spiritual, social, occupational and environmental). This discussion begins with an overview of the major concepts presented in theories of human development. Then, due to the vast amount of literature on development within the adolescent population, I present a general review of the previously outlined categories of adolescent development.

Theories of Human Development

There are many theories of human development that offer plausible explanations for human behaviour; however, there is no single theory that adequately explains the complex transition from infancy through to adulthood. Therefore, I presented various theories in order to better understand the contributing factors to human development. This discussion is delimited to the major concepts presented by John Bowlby, Erik Erickson, Jean Piaget, Lawrence Kohlberg, Carol Gilligan and James Fowler.

John Bowlby Theory of Attachment

Bowlby’s theory of attachment (1969) described certain patterns of response that occurred regularly in early childhood and traced how the patterns were to be
discerned from the functioning of later personality. Bowlby (1969) proposed that child-caregiver interaction patterns were internalized early in life and that these early interactions guided future expectations and evaluations of relationships. In this theory it was argued that early childhood attachment significantly affected personality development. Bowlby (1988) stated that: An adult personality is seen as a product of an individual’s interactions with key figures during all the years of life and especially with attachment figures. Thus, children who have parents who are sensitive and responsive are enabled along a pathway. Those who have insensitive, unresponsive, neglectful, or rejecting parents are likely to develop along a deviant pathway which in some degree is incompatible with mental health. (p. 136) The interaction among parents and child significantly affected development. For example: “children whose mothers respond sensitively to their signals and provide comforting bodily contact are those who respond more readily and appropriately to others” (Bowlby, 1988, p. 15).

With reference to adolescence, Bowlby (1988) presented the importance of parents providing a secure base. Bowlby (1988) stated: The provision by both parents of a secure base from which a child or adolescent can make sorties into the outside world and to which he can return knowing for sure that he will be welcomed when he gets there, nourished physically and emotionally, comforted if distressed, and reassured if frightened. In essence, parents must be available, ready to respond or to assist. (p. 11)

This secure base provided the emotional equilibrium which adolescents were seeking during this time of transition. This sense of security fostered sensitivity to others, social competence and self-confidence (Bowlby, 1988). A parent’s attachment, interaction and ability to provide a secure base all significantly affected a child’s ability to develop into a confident, sensitive and secure being. Furthermore, the safer the attachment of the child to the parent, the more able the child was able to develop relationships with others. This attachment theory presented an explanation why some children developed into healthy productive adults, and others did not.

**Erickson’s Theory of Development**

Erickson (1968) proposed an eight stage theory of human development and stated: Human growth is a lifelong series of conflict, inner and outer, which the vital personality weathers, re-emerging from each crisis with an increased sense of inner unity, with an increase of good judgment, and an increase in the capacity to do well according to his own standards and to the standards of those who are significant to him. (p. 92) The eight stages were trust vs. mistrust, autonomy vs. shame, initiative
versus guilt, industry versus inferiority, identity versus role confusion, intimacy versus isolation, generatively versus self-absorption, and integrity versus despair. Erickson (2005) argued that a healthy child, given a reasonable amount of proper guidance, could be trusted to obey the inner laws of development. Progression through each stage required overcoming a crisis, and demanded resolution before the next stage could be satisfactorily negotiated. These crises were not viewed as detrimental but rather an opportunity to optimize potential (Erickson, 2005). An adolescent would be in the stage of identity vs. role confusion. Erickson (2005) argued that: Identity formation employs a process of simultaneous reflection and observation, a process taking place on all levels of mental functioning, by which the individual judges himself in the light of what he perceives to be the way in which others judge him in comparison to themselves and to a typology significant to them; while he judges their way of judging him in the light of how he perceives himself in comparison to them and to types that have become relevant to him. (p. 247) Erickson (2005) also stated that adolescence was least stormy when the individual had been educated in the area of expanding technologies, and thus able to identify with new roles of competency and invention. If this were not the case, the adolescent mind would become explicit where the individual would continue to search for the ideal, ideas and skills. Furthermore, the adolescent was eager to seek approval by peers and teachers and to feel a sense of worthiness (Erickson, 2005). In sum, adolescent self-identity was dependent on a supportive environment in order to develop and integrate into the next stage.

**Piaget’s Theory of Cognitive Development**

Jean Piaget was another prominent theorist in the area of adolescent cognitive development. According to Piaget (1973), the intellectual abilities of a child at a given age predicted certain types of emotional behaviours. For example, a child who did not understand death would react differently to a grandparent’s death than an older child who might understand this concept. Piaget (1973) further identified four key elements that guided development: maturation, experience, social interactions and equilibrium. Maturation was the physical growth process, experience allowed children to discover for themselves, social interactions provided the experience as well as feedback, and equilibrium was the balance of the first three factors (Piaget, 1973). This equilibrium was the child’s ability to balance or compensate to the external environment. Piaget (1972) described the shift from childhood to adolescence as a movement from
concrete to formal operational thought. The speed of development could vary from one individual to another and also from one social environment to another. Thus, some children might quickly advance, but this did not change the order of the stages that each child would pass through (Piaget, 1972). Formal operational thinking allowed the individual to think in abstract terms; thus, they could symbolically associate behaviour with abstract concepts. Piaget (1972) also described the development of hypothesized reasoning. This reasoning was defined as the ability to think about possibilities, explanations, and to compare what they actually observed to what they believed is possible. Moreover, Piaget (1972) stated that: Hypothetical reasoning changes the nature of discussions: a constructive discussion means that by using hypothesis the adolescent may be able to adopt the view of the adversary and draw the logical consequences that may be applied. The adolescent develops the capacity to understand and construct theories and to participate in society and the ideologies of adults. (p. 4) In other words, with the development of formal thinking, the adolescent was more able to plan for the future and identified possible consequences of certain behaviours.

Kohlberg’s Theory of Moral Development
Kohlberg is a well-known cognitive theorist who studied moral development across the human life span and his theory is based on an orientation to justice. This orientation had an ideal of a morality based on reciprocity and equal respect, and there was an assumption that “the developing child is a philosopher that is constructing meaning around the question of fairness” (Kohlberg, 1984b, p. xxvii). Kohlberg (1984b) proposed a six-stage theory of development that involved a progression from pre-conventional to principled moral decision making. Each of the six stages was hierarchical, sequential and related to age. The stages of moral development were presented as structures of thinking about rules or principles obliging one to act because the action was seen as morally right (Kohlberg, 1984a). In each level of moral thinking, thinking became individual and behaviours were based on personal moral standards.

Preconventional thinking was based on an immediate physical or tangible reward. Older children and young adolescents functioned at a conventional level of moral reasoning in which absolute moral guidelines were seen to originate from authority figures such as parents or teachers (Kohlberg, 1984b). In other words, judgment about right and wrong was derived from a concrete set of rules. Principled moral decision
making emerged in later adolescence. This level of reasoning involved adolescents beginning to question absolute standards and rules. Personal values and morals were separated from the standards held by authority figures (Kohlberg, 1984b). The principled moral decision making stage was furthered characterized by what Kohlberg (1984a) described as “multiple principles of justice and includes the principle of maximum quality of life for each, maximum liberty, equity or fairness in distribution of goods and respect” (p. 637).

**Gilligan’s Theory of Moral Development**

Gilligan (1982) proposed a theory of moral development that was based on the orientation of caring. From this perspective, the ideal was a morality of attention to others and responses to human need (Gilligan, 1982). The caring orientation was rooted in the belief that moral decisions were shaped by relationships with others. Gilligan (1987) further developed a two-pronged model of moral development that included both a justice and caring orientation. Gilligan (1987) described moral development as: The basics of moral development (self, others and relationships) are organized in different ways. For example, from the perspective of someone seeking justice, relationships are organized in terms of equality and symbolized by a balance of scales. On the other hand, a caring perspective is focused on relationships that are characterized by attachment, and the moral ideal is one of attention and response. According to Gilligan (1987), evidence of moral development was now the ability to entertain two different perspectives and to consider different views. Gilligan’s model illustrated that there were differences in how male and female adolescents developed morally. In fact, studies have found that although males and females might use both a justice and caring orientation to develop morally, males tended to focus on justice, while females were more likely to approach morality with a caring orientation (Gilligan, 1987; Walker, de Vries, & Trevethan, 1987).

**James Fowler’s Stages of Faith**

Fowler (2006) also proposed a framework for understanding the evaluation of how humans conceptualize God and how the influence has an impact on core values, beliefs and meanings in their personal lives and their relationships with others. Similar to previously identified theorists, Fowler argued that faith seemed to have a broadly recognizable pattern of development (Fowler & Dell, 2006). Faith was defined by Fowler and Dell (2006): An integral, centering process, underlying the formation of the beliefs, values and meanings that give coherence and direction to
persons’ lives. Link them in shared trust and loyalties with others, ground their personal stances and communal loyalties in a sense of relatedness to a larger frame of reference and enables them to face and deal with the challenges of human life. Fowler and Dell (2006) also stated: As a child matures, physically, emotionally, faith accommodates the development of an expanding range of object relations exposure to the religious symbols and practices may nurture a sense of relatedness to the transcendent. (p. 36) When relating to the development of faith in adolescence, Fowler (2006) identified a stage called the Synthetic-Conventional Faith. This developmental stage involves “revolutions in cognitive functioning and interpersonal perspective taking” (p.39). Fowler (2006) argued that during this stage: Youth develop attachments to beliefs, values and personal style that link them in conforming relations with the most significant others among their peers, family and other non-family adults. Identity, beliefs and values are strongly felt, even when they contain contradictory elements. (p. 40)

**Adolescent Physical Development**

Physical development in adolescence is dependent on many factors, and therefore, I have delimited this discussion to the factors in which I have identified essential components to the promotion of physical development. These include: adequate physical growth, regular physical activity, healthy eating, and health habits such as smoking, alcohol or drug use. Adolescence is a dynamic period of growth and maturation marked by rapid changes in skeletal and lean body mass. While all adolescents follow the same pattern of growth and development to maturity, the timing and tempo is different in each child. Genetics and nutrition were the most important determinants of the onset, rate and extent of growth (Hockenberry & Wilson, 2007). Once the process of growth begins, the changes and progression are usually predictable. General growth includes accumulation of body mass, along with increases in height and weight. On average, “girls gain 5-20 cm in height and 7-25 kg in weight during adolescence and boys gain 10-30 cm in height and 7-30 kg in weight” (Hockenberry & Wilson, 2007, p. 817). There are also many other predictable physical developments in this age group: increases in size and strength of the heart and blood volume, increases in size and capacity of the lungs, an increased metabolic rate, and significant brain growth (Hockenberry & Wilson, 2007).
2.5 Physical Activity and its Relation to Development

Physical activity is an essential component to healthy development. There is a vast amount of literature documenting the positive correlation between participation in physical activity and adolescent functioning. Regular physical activity enhances physical development such as reducing risk for cardiovascular disease and high blood pressure, promotes healthy emotional development, reduces risk of depression, and promotes healthy sleep patterns (Brien & Katzmarzyk, 2006; Hockenberry & Wilson, 2007; Katzmarzyk, Janssen, & Ardern, 2003; McKinney, James, Murray, & Ashwill, 2005). Furthermore, there have been several studies that have reported a positive association between participation in physical activity and academic achievement (Crosnoe, 2001; Marsh & Kleitman, 2003; McHale, Crouter, & Tucker, 2001). Despite the well-known positive effects of physical activity, there has been a general decline in energy expenditure through physical activity. For example, “In 2003, 76% of 12-14 year old males and 71% of 12-14 year females were moderately active in physical activity; among youth aged 15-19, rates decreased slightly in males to 74% and decreased significantly in females to 61%” (Canadian Institute for Health Information, 2005, p. 30). There were many contributing factors to the increased inactivity in children and adolescents. Increased reliance on technology, such as an increased amount of television and computer programming for children and lack of required physical activity classes in schools, were just two examples of potential reasons for the increasing amount of sedentary time (Tremblay & Willms, 2003). Furthermore, Hayes and King (2003) found that play has become sedentary, meaning that television, computers and video games were limiting opportunities for physical activity. Evidence indicated that regular physical activity was required for healthy growth and development. Despite numerous studies correlating these positive effects, there was a decline in physical activity levels for youth. A low level of physical activity could seriously affect growth and development in this population.

2.6 Nutritional Implications for Development

Maintaining adequate nutrition to support rapid growth in adolescence is essential to healthy physical development. During this period of growth there is a subsequent increase in nutritional requirements. At the same time, there is a growing need for independence, peer acceptance, concern of physical appearance and active lifestyle (Hockenberry & Wilson, 2007). All these issues could lead to changes in eating habits
and can have serious nutritional implications. The nature of the food supply, increased reliance on foods consumed away from home, food advertising, marketing and promotion, and the low cost of energy dense foods all played a role in eating behaviour (Hockenberry & Wilson, 2007). The food industry has responded to these modern times by increasing the convenience of foods available (Anonymous, 2005). In addition, portion sizes (French, Story, Neumark-Sztainer, Fulkerson, & Hannan, 2001) and the availability of added sugars and fats (Megill, 2006) have also increased in the past twenty years. Clearly, adolescents’ nutritional habits were influenced by many factors. Due to these influences, adolescents were more likely to experience problems with dietary imbalances and excesses. Specifically, excess intake of calories, sugar, fat, cholesterol and sodium commonly occurred in this age group (Hockenberry & Wilson, 2007). Among Canadian youth, limited data indicated that more carbohydrates, energy and fat from “other” foods (i.e., those foods that do not comprise one of the four recommended food groups by Health Canada such as soda pop, chips, or pizza pops) were consumed more by adolescents than by other age groups (Canada Food Stats, 2003; Starkey, Johnson-Down, & Gray-Donald, 2001). Another study found that, “among 12- to 14-year olds, 41% of males and 46% of females consumed fruit and vegetables five or more times a day; proportions were slightly lower for 15-to 19-year olds at 38% for males and 45% for females” (Canadian Institute for Health Information, 2005, p. 30). In other words, less than half of the adolescent population was eating an adequate amount of fruit and vegetables per day. There was also evidence that adolescents tended to have an inadequate intake of certain vitamins such as folic acid, vitamin B6, vitamin A and minerals such as iron, zinc and calcium (Hockenberry & Wilson, 2007). These dietary patterns are a concern as these excesses and deficiencies can lead to serious health issues. One health concern is the increasing rates of overweight and obesity in Canada. Specifically, “rates have increased from 11% to 33% in boys and from 13% to 27% in girls for overweight, and from 2.0% to 10% in boys and from 2% to 9.0% in girls for obesity” (Tremblay, Katzmarzyk, & Willms, 2002, p. 538). Over a 15- year period in Canada, the prevalence of overweight and obesity has tripled among boys and doubled among girls. This suggests that not only have children become more overweight in the past few decades, but also that overweight children have been getting heavier. Obesity poses both immediate and long-term implications for adolescents. Although complications from obesity were more frequently seen in
adults, children and adolescents are experiencing significant health consequences as well (Hockenberry & Wilson, 2007). For example, evidence suggested that T2DM, hyperlipidemia, and hypertension were not restricted only to adults but are becoming increasingly common among children (Katzmarzyk et al., 2004). Furthermore, overweight and obesity during childhood were strong predictors of obesity and cardiovascular disease in young adulthood (Janssen et al., 2005). Along with obesity, eating disorders also pose a developmental concern for the adolescent population. Eating disorders are affecting adolescents with increasing frequency. Specifically, about 85% of young women age 15-17 who were average weight wanted to lose weight (Health Canada, 1999). The adolescent was depriving himself/herself of energy (calories) and protein that are crucial to growth (Hockenberry & Wilson, 2007). Moreover, there was evidence that adolescents with eating disorders may be losing critical tissue components, such as muscle mass, body fat and bone mineral during a phase of growth when dramatic increases in these elements should be occurring (Hockenberry & Wilson, 2007; McKinney et al., 2005). Clearly, nutrition is a vital component of healthy growth and development. Adolescent nutritional habits are influenced by many factors, and unfortunately, these influences occur at a time when adolescents have increasing nutritional needs. Moreover, there are serious physical developmental implications of nutritional deficiencies and excesses during adolescence.

2.7 Contributing Factors of Health Habits on Adolescent Development

Health habits such as smoking, alcohol and drug use can also influence growth and development in adolescents. There are many reasons why adolescents may choose to use tobacco, alcohol and other drugs. Examples of possible reasons are that these substances provide the opportunity to challenge authority, demonstrate autonomy, and peer acceptance (Hockenberry & Wilson, 2007). Moreover, evidence has suggested that many of the practices that contribute to health and wellness in adulthood were often established during adolescence (Hedberg et al., 1999). Therefore, it is found important to recognize that these health habits have the potential to play a key role in adolescent.
Summary:
After reviewing the literature researcher has come to know that current research problem was novel and unique. The above literature shows that there was a change in wellness behaviour of adolescent due to their lifestyle and situations. From the review of related literature, it was found that there was a scope for research in wellness intervention program for adolescents. On the basis of review, researcher formulated suitable methodology to be adopted in this research, which is presented in chapter- III.
References


