CHAPTER II

REVIEW OF RELATED LITERATURE

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REVIEW OF RELATED LITERATURE

The review of related literature is a key step in the research process. According to Wood and Haber (1995, p.98) literature review is an extensive, systematic and critical review of the most important published scholarly literature on a particular topic. The major purpose of reviewing the literature is to determine what has clearly been done that relates to one’s problem. Another important function of review is that, it points out research strategies and specific procedures and measuring instruments that have and have not been found to be productive, in investigating one’s problem. Familiarity with previous research also facilitates interpretation of the results of the study. Finally, these reviews give information, which can either support or challenge the conclusions of the investigator’s research and therefore provide clues for later research.

In India, research in the field of mental retardation is of recent origin. Consequently research publications in this field are very limited. An abstract of relevant materials is presented here under appropriate heads.

2.1 Health Education: Concept, aims and objectives, contents and methods

Health education is one of the most cost effective interventions. A large number of diseases could be prevented with little or no medical
intervention if people were adequately informed about them and if they were encouraged to take necessary precautions in time (Park 2005, p. 38).

Health education is indispensable in achieving individual and community health. It helps to increase knowledge and to reinforce desired behaviour patterns. But there is no single acceptable definition of health education. A variety of definitions exist. Health education is defined as the translation of what is known about health, into desirable individual and community behaviour patterns by means of an educational process (Park, 2005, p.656).

The definition adapted by the National Conference in preventive medicine in USA is “Health education is a process that informs, motivates and helps people to adopt and maintain healthy practice and lifestyles, advocates environmental changes as needed to facilitate this goal and conduct professional training and research to the same end”. (Park 2005,p. 656).

The Declaration of Alma-Ata, 1978 gave a new meaning and definition to the practice of health education. The dynamic definition of health education is “a process aimed at encouraging people to want to be healthy, to know how to stay healthy, to do what they can individually and collectively to maintain health, and to seek help
when needed”. The Alma-Ata Declaration has revolutionized the concepts and aims of health education.

Following the Alma-Ata Declaration adopted in 1978, the emphasis has shifted from prevention of disease to promotion of healthy lifestyle, the modification of individual behaviour to modification of ‘social environment’ in which the individual lives; community participation to community involvement, promotion of individual and community “self reliance”(Park, 2005,p.656).

### 2.1.1 Aims and objectives of health education

1. To encourage people to adopt and sustain health promoting life style and practices.

2. To promote proper use of health services available to them.

3. To arouse interest, provide new knowledge, improve skills and change attitudes in making rational divisions to solve their own problems.

4. To stimulate individual and community self-reliance and participation to achieve health development through individual and community involvement at every step from identifying problems to solving them.
The focus of health education is on people and on action. Its goal is to make realistic improvements in the basic quality of life. Health education is an integral part of the national health goals.

2.1.2 Contents of health education

The scope of health education extends beyond the conventional health sector. It covers every aspects of family and community health. The contents of health education may be divided into the following divisions for the sake of simplicity.

1. Human Biology

Understanding health, demands an understanding of the human biology, that is, the structure and functions of the body, how to keep physically fit, the need for exercise, rest, sleep, cultivation of healthy life styles etc. Reproductive biology is another area of current interest. The best place to teach human biology is the school. The provision of information and advice on human biology is vital for each new generation.

2. Nutrition

The aim of nutrition education is to guide people to chose optimum and balanced diets, remove prejudices and promote good dietary habits. Nutritional problems such as ignorance about the value of balanced diet, ignorance of the appropriateness of certain
diets for children, traditional food allocation pattern within the families etc can be best solved by nutrition education. Nutrition education is a major intervention for the prevention of malnutrition, promotion of health and improving the quality of life.

3. **Hygiene**

This has two aspects: personal and environmental. The aim of personal hygiene is to promote standards of personal cleanliness, within the setting of the condition where people live. Personal hygiene includes bathing, clothing, washing hands and toileting, care of nails, feet and teeth, personal appearance and inculcation of clean habits in the young. Training in personal hygiene should begin at a very early age and must be carried through school age. Environmental hygiene has two aspects-domestic and community. Domestic hygiene comprises that of the home, need for fresh air, light and ventilation, hygienic storage of foods, hygienic disposal of wastes, need to avoid pests, rats, mice and insects. An environmental sanitation programme should involve health education. If a health education approach is taken, the people will participate from the beginning in identifying their sanitation problems and will choose the solutions and facilities they want. They will then be more likely to use these facilities and improve their health (Park, 2005, p.659).
4. **Prevention and control of communicable and non-communicable diseases**

Drug alone will not solve health problems. Without health education, a person may fall sick again and again from the same disease. Education of the people about the prevention and control of locally endemic diseases is one of the essential activities in primary health care. Communicable and non-communicable diseases such as malaria, AIDS, leprosy, tuberculosis, dental diseases, hypertension, diabetes, heart diseases etc require health education either to control the disease or to eradicate them (Park, 2005, p.659).

5. **Prevention of accidents**

Accidents are a feature of the complexity of modern life. In the developed countries, they are taking an increasing toll of life and limb. Accidents occur in three main areas: the home, road and the place of work. Safety education should be directed to these areas. The predominant factor in accidents is carelessness and the problem can be tackled through health education (Park, 2005, p.660).

6. **Use of health services**

Many people particularly in rural areas do not know what health services are available in their community, and many more do not know what signs to look for that indicate a visit to the doctor is necessary. Studies indicate that the public attitude towards health
services is still apprehensive. There is a communication gap between the public and the state health administration in the form of “feedback” for further improvement of health services. One of the declared aims of health education is to inform the people about the health services that are available in the community and how they can utilize them (eg. screening programs, immunization etc) and use the health care resources (Park, 2005, p. 660).

2.1.3 Methods of health education

The methods in health education may be grouped as individual approach, group approach and mass approach. Any one or a combination of these methods can be used selectively at different times depending upon the objectives to be achieved, the behaviour to be influenced and availability of funds.

1. Individual approach:

It may be given in personal interviews, in the consultation room of the doctor or in the health center or in the homes of the people. Topics for health counselling may be selected according to the relevance of the situation. The nursing staff has ample opportunities for undertaking health education. The biggest advantage of individual health teaching is that we can discuss, argue and persuade the individual to change his behaviour.
2. **Group approach:**

Group teaching is an effective way of educating the community. The choice of subject is group health teaching must relate directly to the interest of the group. School children may be taught about oral hygiene, environmental hygiene etc. We have to select suitable methods of health education including audio-visual aids for successful group health education. Methods of group teaching can be lectures, demonstrations, group discussion, panel discussion, symposium, workshop, role-play and seminars.

3. **Mass approach:**

Mass media are a “one way” communication to educate the general public. They are useful in transmitting message to people even in the remotest places. The mass media includes television, radio, internet, newspaper, printed material, posters, health museums, exhibitions and folk media. The mass media are only “instruments”. As such they are neither good nor bad. What matters is the message they carry and the way the message is delivered. India is dominated by a traditional society. The health education has adopted the media to suit the culture and tradition of Indian society.

Unlike other basic education, health education starts from infancy and last till death. The mother being the first teacher of child,
every prospective mother should be made the target for health education activities. From weaning of breast milk to brushing teeth, bathing, eating, drinking, speaking, sitting, standing and walking, all include certain etiquettes and manners, which itself is health education. If properly imbibed from infancy, then there will be no difficulties in bringing about effective and desired health behaviours. Health education has been given priority and an important role in health program (Park, 2005,p.664).

From the above discussion it can be concluded that health education is one of the most cost effective interventions. Health education is indispensable in achieving health. The main contents of health education are human biology, nutrition, personal and environmental hygiene, prevention of infectious and common diseases, prevention of accidents and effective use of available health services. Health education can be imparted in the form of individual, mass or group approach. Health education is an integral part of the national health goals.

2.2 Health Problems and Needs of Individuals with Mental Retardation

Delays are most commonly seen in language and cognitive skills among the Individuals with mental retardation whereas delays in gross motor skills are less affected, especially in mildly retarded.
Hyper activity, poor memory, poor attention, poor concentration, distractibility, emotional instability, sleep problems, impulsiveness and clumsy movements and seizures are usually present in individuals with mental retardation (Gupte, 1998, p.272).

Multidisciplinary approach with spotlight on specialized educational and therapeutic services form the backbone of management of child with mental retardation. The child must be provided with the routine basic health care including immunization, growth monitoring and therapy of illness as and when needed. Management of common accompaniments of mental retardation like seizures, impaired vision and hearing, musculoskeletal disability, hyper activity, squint etc. is vital. Central to all management is the warmth and appreciation of the caregiver rather than harsh criticism (Gupte, 1999, p.273).

Nurses play a role in developing and implementing the Individualized Education Plan (IEP) for each child with special needs in the general and special school system and the individualized family service plan designed for the family and child with special needs in an early intervention program (Nehring, 1994).

There is a need to investigate the learning abilities of children with mental retardation. Individuals with mental retardation learn
concrete ideas more effectively than abstract ideas. Therefore demonstration is preferable to verbal explanation and learning should be directed towards mastering a skill rather than understanding the scientific principles underlying a procedure.

It was observed that mentally retarded children are less capable of managing environmental challenges than their unimpaired peers. Health teaching of mentally retarded children are similar to those of children without disabilities. Children with mental retardation may need prolonged teaching, more demonstration during teaching, frequent verbal and visual reminders and more practice (Nehring, 1994).

The ultimate purpose of education for students with mental retardation is to prepare them for independent living in the community along with normal peers (Narayan and Myreddi, 2000).

Early in the 20th century, individuals with mental retardation are generally isolated rather than encouraged to lead a fulfilling and healthy lives (Campbell, 1999). The last 40 years, however have seen dramatic changes in sentiments regarding those with mental retardation resulting in a turn in public policy towards an emphasis on normalization and inclusion (Rowitz et al., 1992).
It is a fact that individuals with mental retardation often have difficulty determining when they are in need of medical assistance and relay heavily on care givers to recognize health problems or to schedule routine health care appointments (Lennox et al., 1997). The health care providers including physicians and nurse practitioners should make medical and preventive care readily available, coordinate referrals to specialty care, educate family members or care givers and coordinate with education and social service agencies.

Individuals with mental retardation should be educated about disease prevention, recognition of symptoms of healthy conditions and health maintenance. Developmentally appropriate teaching materials should be utilized with this population to promote self sufficiency and dignity (Horwitz et al., 2000).

Scott et al. (1998) noted that various types of dental diseases particularly periodontal disease, oral mucosal pathology and moderate to severe malocclusion where up to seven times as frequent as compared to the general population. They recommended appropriate dietary habits and oral hygiene practices.

It was found that individuals with mental retardation have poor overall oral health and hygiene compared with the general population (Waldman et al., 1998).
Beange et al. (1995) found that dental disease was the most frequent health problem, occurring in 86% of subjects. They recommended the need for education and behavioural interventions for appropriate dietary habits, oral hygiene practices and dental visits.

High frequencies of ocular disorders have been found in several surveys (Wilson and Haire, 1992).

In a large community survey Warburg (1994) found that non-correctable visual impairment was present in 10% of adults with mental retardation, at least 7 times higher than in the general population. Adults with down syndrome aged 30 years and over are at risk of premature age related cataracts, increasing refractive errors and degenerative corneal changes (Volker et al., 1993). They recommended the need for routine screening for age related visual loss.

Similarly Wilson and Haire (1992) noticed sensory impairment and hearing problems in individuals with mental retardation, often unrecognized and if recognized poorly managed. Hearing loss as a result of impacted earwax is a frequent problem in adults with mental retardation. They recommended the needs for screening test.

Stewart et al. (1994) reports that nutritional status is recognized as an important factor in maximizing growth potential,
maintaining health and improving quality of life and longevity. Nutrition related health problems particularly obesity and chronic constipation are more common in people with mental retardation than in the general population. They suggested screening for nutrition related problems by anyone working with people with disabilities and the use of basic nutrition educational materials.

People with mental retardation have a significantly lifetime risk of developing epilepsy (Corbett, 1988). Epilepsy adds both additional morbidity and mortality (Forgen et al, 1996). There is reduced life expectancy for individuals with epilepsy. Researchers recommended the need for providing education on epilepsy to all individuals with mental retardation and their carers.

Studies point out that dental problems are among the top ten limiting secondary conditions among individuals with mental retardation. One of the most common oral health problems of children and adults with mental retardation is dental caries (Haavio, 1995). Another common oral health problem among children and adults with mental retardation is gingivitis. Since oral health is dependent on oral hygiene, the increased prevalence of oral health problems among individuals with mental retardation may be related to their oral health habits (Waldman and Perlman 2000). Infact the oral hygiene among
individuals with mental retardation has been shown to be consistently poor compared with individuals with general population.

As in the general population, good oral hygiene is an important measure to prevent oral diseases among individuals with mental retardation. Teaching program should be organized to improve the oral hygiene. Health education enables any individual or group of individuals realize the health needs and match them with necessary health related behaviour for the attainment of positive health. Health education is the part of health care that is concerned with promoting healthy behaviour. Health education frequently takes a form that is inappropriate for mentally handicapped people or unavailable to them.

Individuals with mental retardation are particularly vulnerable to abuse due to multiple factors including life long dependence on adults for care, trained compliance, social isolation, lack of education about sexual abuse and a societal view that devalues people with disabilities (Olkin, 1999 and Stromness, 1993). Smith et al. (1995) reported that lack of education on human biology and sex places persons with mental retardation at increased risk of unwanted pregnancy, sexually transmitted diseases and abuse,
particularly when they are living in their own natural habitat and in institutions.

Jobling (2001) in his study of health education for individuals with disability discussed the issues of health education programming for people with intellectual disability. Individuals with mental retardation are encouraged to make their own choices. The issue of whether current health education is sufficient to enable them to make healthy life choices is considered. The results suggested the need for more attention on program in schools and the community to fulfill this need. Three aspects of health education programmes were considered: - Physical activity, knowledge on general health and social support for health. Continuity of information is viewed as important, to assure that these individuals are not further handicapped by poor health.

Chicoine et al. (1994) argued that many of the problems identified could be ameliorated with attention to good hygiene and hygiene education as well as promoting behaviours such as exercise. Kapell et al (1998) advocated better access to health services and discussed the necessity to continually monitor the health status of individuals with mental retardation, as they grow older.
Education programs can produce life long effects on a person’s health. However as Jones (1995) stated “while aspects of health education are now a part of national curriculum little thought has been given to providing for those with disabilities”.

Similarly Anderson (1993) commented the lack of research into aspects of health such as nutrition, weight control, fitness and other factors that could prevent disease. He also highlighted the need for the development of strategies that could be useful in facilitating health learning. The school years are seen as an appropriate time to develop knowledge and skills about health. Yet the provision of health education materials modified for learners who have mental retardation is almost nonexistent, and the amount of time devoted to aspects of healthy lifestyle in school programmes for children with disabilities is low (Lockwood and Lockwood, 1998).

Individuals with mental retardation need knowledge of body parts and their functions. As a life skill for health, knowledge of sexual organs and their functions are given priority over those associated with circulation, digestion and respiration. Although sex education is a necessary part of any health education programme, and may be an aspect that has been over looked for mentally retarded population in the past (Kempten and Stiggal, 1989).
Not only is knowledge about the whole body important but, in order to adopt healthy behaviours, knowledge about how the body processes food, healthy eating habits and the application of nutritional knowledge to food selection and preparation are essential. Students need to be taught both psychological and physiological factors that relate to their own health and how to manage them. The ability to choose and plan healthy interesting meals of high nutritional value is an essential life skill for independent living and several authors have demonstrated the importance of this with young adults who have mental retardation (Becher and Pyle, 1997). The importance of drinking plenty of water for general body hydration also needs to be taught and reinforced. Students with mental retardation can learn about keeping their body healthy and about appropriate home hygiene and safety skills, but more needs to be done to improve the integration of this knowledge into their independent life styles.

In schools the development of a whole school policy and an integrated approach to the adoption of a healthy lifestyle is necessary. The use of portfolios modified for students with mental retardation could provide an alternative educational and assessment tool for students in health education classes (Cleary, 1993). Parents
play an important role in modelling health behaviours and consistent parental guidance can establish healthy behavioural patterns (Waters, 1999).

According to Hand and Reid (1998) at the policy level, a framework is required for health education issues across the life span. Within this policy framework, regularly managed health care provisions; preventive strategies, educational programmes and professional training are particular aspects that require attention. Families and community health promotion agencies should also be encouraged to help in this task by assisting in the development of materials that meet the health education needs of individuals with mental retardation.

Without good health, individuals with mental retardation may be unable to function to the best of their abilities and could become more isolated from community settings and friends. Poor health should not become an additional handicap (Beange et al., 1999).

A competent leader of the mentally retarded is one who is able to thoroughly understand the person, his family, his environment and the social milieu in which he grows and then devotes all his/her resources to achieve the maximum development of the mentally retarded person by building up in him optimum
physical ability and mental ability and skills through the stimulation of full functional growth (Felix, 1990 p.126).

Mann et al (2006) did a study to find out the healthy behaviour change of adults with mental retardation. One hundred and ninety two overweight and obese adults with mental retardation participated in a health promotion program. Result revealed that they had behaviour change resulting in reduction of body mass index by the end of the program. Researchers analyzed the factors contributed to weight reduction and found that knowledge and exercise to be the primary contributing factors. The curriculum emphasized exercise, nutritional choices and stress reduction. The implication of the study was that individuals with mental retardation might lack knowledge on key aspects like healthy eating and physical activity; the provision of information on these topics is a vital component of successful interventions in this population.

Historically the most widely accepted definitions of health have focused on the absence of diseases and disability (Rimmer, 1999). On the basis of this narrow perspective, people with disabilities have often been portrayed as unhealthy with little or no regard for health protection, maintenance and disease prevention strategies.
Tighe (2001) stated persons with physical or mental impairments are often granted a permanent visa to the kingdom of the sick, it may be because disability is often equalled with ill health that much of the research on health and well being for people with mental retardation has focused on possible consequences that follow as a result of disability.

Wilson and Haire (1990) examined the prevalence of medical condition via physical examination with 65 adults from one community day center. They reported that health problems were evident across the entire sample and that 88% of the participants had at least one health problem that was undiagnosed prior to procedures employed in the research, such as obesity. The findings also revealed that although the sample population presented with numerous health problems they didn’t report using health services such as medical consultations more frequently than a comparison group.

Shaw et al. (1986) conducted a study comparing dental health in school age persons identified that there were few differences in the occurrence of cavities between children with or without mental retardation. Treatment for decay was more likely to result in the removal of the tooth in the child with mental retardation than the
restoration of the tooth as in the child without mental retardation. Children with mental retardation had poorer levels of oral hygiene compared to children without disabilities.

Palin et al. (1997) undertook a study to assess the usefulness, appropriateness and relevance of a video as an oral health education medium for children with mental handicap and for pre-school group where children with mental handicap and healthy children are taught together. The video was designed for children with mental handicap but was also recommended for integrated groups. Forty children with mental retardation from four special education classes and 2 nursery school groups, one hundred and fifty one normal children from 11 nursery school groups and the teachers of these classes and groups evaluated the material. The result showed that professionally made videos which is designed for mentally retarded children when used by trained teachers are of useful and valuable aids in educating children of different levels of mental retardation about oral health.

Schultz and Adams (1997) identified the family life education needs of minimally and mildly mentally disabled adolescents as a basis for curriculum development. Respondents were 134 students from 11 school districts in a mid western state. A questionnaire with a
50 needs statement was used. They were asked to indicate the magnitude of need and the extent to which the need was being met. Special education teachers were allowed to assist in reading or interpreting the directions and needs statements. Priority need statements, which were not being met, are related to the marriage and parenthood, decision-making and goal setting. Six groups of family life education needs were identified. They were basic nutrition, teenage pregnancy, sex education, marriage and parenthood, developmental task of adolescents and planning and decision-making. Females reported significantly greater need for information on nutrition, teenage pregnancy and marriage and parenthood.

Mori (1981) stressed that The Education for All Handicapped Children Act of 1975 will cause mildly handicapped children to be integrated into mainstream academic classes including health education. Because of the desperate needs of these children, health educators will have to provide for a diverse group of learners. Since it is clear that health education encompasses topics crucial to the overall social and personal development of the handicapped, it is essential that health educators become prepared to maximize learning opportunities for the handicapped child in the mainstream.
Traci et al. (2000) found that the estimated prevalence rate of oral hygiene problems was 451 per 1000 individuals with disabilities. Like the general population, one of the most common oral health problems of children and adults with mental retardation is dental caries. Poor oral health can have dramatic effects on individuals’ quality of life. Infact it can cause difficulties with eating, speech impairments, pain, sleep disturbance, missed days of work or school and decreased self esteem (Broder et al., 1994).

Health care and education policies have addressed the specific needs of individuals with intellectual difficulties (Hand and Reid, 1998). If health problems exist in the adult population with intellectual disability, health education in schools and in the community for younger individuals is essential. Individuals with mental retardation have poorer overall oral health and oral hygiene compared with the general population (Haavio, 1995, Feldmen et al., 1997, and Waldman et al., 1998)

Since oral health is dependent on oral hygiene, the increased prevalence of oral health problems among individuals with mental retardation may be related to their oral health habits (Waldman and Perlman, 2000). Infact the oral hygiene among individuals with mental retardation has been shown to be consistently poor compared with individuals in the general population (SOI, 1999).
Caspar et al. (2001) conducted a study on education programme with a newly developed curriculum. The education was provided to 12 adults with mental retardation to examine whether their awareness on human biology and sexuality has increased and their attitudes has changed. Result revealed that knowledge has increased and attitudes changed for the adults following the education programme. Lennox et al. (1997) stated that the health status of people with intellectual disabilities is much lower than that of the general population. The health of people with mental retardation and issues that impinge on it have largely been ignored.

There are barriers to the health care of people with mental retardation. They are communication difficulties that affect the doctor’s ability to obtain information and the patient’s ability to understand the doctor, difficulties obtaining accurate histories from both the patients and support staff; poor compliance with the doctors instructions, a common lack of knowledge on the part of the doctor’s about mental retardation and associated health issues. Variable attitudes on the part of general practitioners towards people with mental retardation and how they should be medically supported. Health promotion occurs on a much lower scale for people with mental retardation. Efforts to encourage healthy nutrition, exercise
and healthy life styles are less than for the general population and there is very little health promotion material available in formats that are accessible to people with mental retardation. Many people with intellectual disability depend on their family or care givers to initiate and facilitate access to all health care.

Simond’s (1980) study reported on the behaviours of mildly retarded adolescents. The retarded adolescents’ heterosexual interests are of great concern to parents. The retarded adolescent is vulnerable to suggestibility, poor judgment and failure to foresee the consequences of his actions. Parents are usually distressed by the retarded youth’s sexual behaviours and they may develop an attitude that these behaviours are “bad”. There is a need to provide appropriate education for mentally retarded children and to counsel their families about the management of sexual behaviours which occur during adolescent years.

Mcnab (1978) discussed that one of the basic needs of life to the handicapped as well as to all individuals is the understanding of one’s own sexuality. Sex education can help handicapped individuals in finding sexual satisfaction and may foster self-responsibility, maturity and positive actions toward other rehabilitation goals. Traditionally the teachings of sexuality to
handicapped persons have run into objections resulting from society's negative attitude towards the handicapped and parental apprehension regarding the decision-making skills of their children in relation to acceptable and unacceptable sexual behaviours. However, The Education for All Handicapped Children Act of 1975 has provided a way for parents and health professionals to put pressure on local, state and federal programs to allocate funds for the development of a sound sex education programme. As professionals in health education it is health team members' challenge and responsibility to see that the sexual needs of the handicapped are not forgotten.

Jones and Kerr (1997) did annual health screening of individuals with intellectual disability. Result revealed that majority of them required follow up interventions and 18.6% required health protection actions. 11.6 percent required interventions relating to their sight, 10.8% required haematology, 10.3% required ENT follow up, 9.6% required gynaecological follow up, 9.4% required dental interventions, 9.3% were either obese or under weight, 7.7% required gastrointestinal follow up, 7.7% required specialist medication reviews, a further 16.5% required follow up in psychological, neurological and counselling areas.
Santos et al. (1999) recommended in their study the need for adopting multi disciplinary team approaches incorporating input from medical and nursing professionals and mental health providers as well as dentists and dental hygienists in caring individuals with mental retardation to ensure optimal oral health.

Hearing loss as a result of impacted earwax is a frequent problem in adults with intellectual disability (Crandell and Rosser, 1993). They recommended routine screening for age-related hearing loss of all adults at age 45 years and every 5 years thereafter has been recommended. Stewart et al. (1994) found that nutrition related health problems particularly obesity and chronic constipation are more common in people with intellectual disabilities than in the general population. Nutritional well-being is recognized as an important factor in maximizing growth potential, maintaining health and improving quality of life and longevity. They recommended nutrition risk screening for recognizing and managing nutrition problems.

Corbett (1988) found that people with mental retardation have a significantly increased lifetime risk of developing epilepsy. There is an association with higher prevalence of epilepsy and increasing disability. There is good evidence that epilepsy adds both additional
morbidity and mortality (Forgen et al., 1996). There is reduced life expectancy for people with intellectual disability who have epilepsy. They recommended the need to have a plan for the acute management of seizures, have an yearly assessment, for medication side effects and to provide education on fits to all individuals and their carers.

Families and informal carers are unaware of the greater health needs of people with mental retardation (W.H.O, 2001) and the difficulties and barriers that this group of people faces in accessing adequate health care (Lennox etal., 1997). Regular health assessments have been found to be effective ways of achieving positive health outcomes (Martin, 2003).

Webb and Rogers (1999) identified that many people with an intellectual disability need support to maintain a healthy life style and access health services. Comprehensive health screening will result in improved health in people with an intellectual disability. They recommended organized regular comprehensive physical assessment and review by a medical practitioner.

Persons with intellectual disabilities experience a different level of health than their non-disabled peers. Obesity is reported as being more common among people with intellectual disability than in the
general population with estimates ranging 29.5% to 50.5% (Rubin et al., 1998). Vaccination levels (77%) for those with intellectual disability are lower than those reported for the general population (91%) (Scher et al., 1981). The proportion of missing teeth to filled teeth is cited as being higher among individuals with mental retardation when compared with the general population suggesting that extraction rather than restoration is the preferred choice of treatment (Nowak, 1984). Despite the increased prevalence of certain health conditions among people with mental retardation, evidence suggests that individuals with mental retardation do not receive preventive screening (Jones and Kerr, 1997).

Persons with mental retardation grew up, grow old and need good health and health care services in their communities. But people with mental retardation, their families and their advocates report exceptional challenges in staying healthy and getting appropriate health services when they are sick. They feel excluded from public campaigns to promote wellness. The shortage of health care professional who are willing to accept them as patients and who know how to meet their specialized needs. The lack of population based data on prevalence of mental retardation and the health status and service needs of this population impedes planning
and allocation of resources for their care. Failure to monitor the quality of their care hampers detection of inadequate treatment. At the same time individuals, family members and health care providers need easily accessible, scientifically accurate, culturally relevant and understandable information for prevention and health promotion as well as for diagnostic and treatment decisions (U.S. Surgeon office, 2002, p. 5).

Fisher (2004) in his study focuses attention on unmet needs of people with mental retardation. Despite the increased physical and mental health problems experienced by people with mental retardation, they are less likely than the general public to receive adequate health care. Discrimination, stigmatization and stereotypical beliefs regarding people with mental retardation have all been identified as factors contributing to unmet health care needs. Considerable effort is required to resource interventions to reduce these health inequalities (Houghton, 2001).

Individuals with intellectual disabilities represent a wide range of personalities and capabilities. They are athletes, friends, colleagues, students and family members. Inclusion in society is harmful to no one. Indeed segregation is often more detrimental because it limits a person's quality of life and potential to contribute
to society. To promote acceptance of individuals with mental retardation ‘Special Olympics Unified Sports’ approach can be promoted. Special Olympics is an international organization dedicated to empowering children and adults with mental retardation to become physically fit, productive and respected members of society through sports training and competition (Corbin, 2005).

Lewis et al. (2002) conducted a study on quality of health care for adults with developmental disabilities to determine the health status of adults with developmental disabilities residing in community setting and the quality of the preventive, medical, dental and psychiatric services they receive. Data was collected on a sample of 353 adults residing in Los Angeles, California. Historical data were obtained from study subjects or caregivers, physical and dental examinations were performed, blood was drawn for analysis and a psychiatrist reviewed medical records for reports of psychiatric diagnosis and consultations. Results revealed that the health markers such as rates of obesity and laboratory test results of routine screening were within normal limits for an adult population. However preventive services were notably lacking, especially for individuals with mental retardation living at home. Researchers concluded that U.S. health care system fails to ensure
the provision of preventive services to all people including the developmentally disabled.

A study was conducted by Jennifer (1999) on the care of individuals with mental retardation. She identified certain areas of continuing health care needs. Main areas focused are screening for hearing and visual problems, gastrointestinal disorders and review of medications.

From the above discussion it is revealed that individuals with mental retardation experiences lot of health problems and there is a need for educating health aspects to them for the promotion of health and prevention of diseases.

2.3 Public Health Services:- Accessibility, Utilization and Appropriateness to Individuals with Mental Retardation

Despite the high prevalence of health problems among individuals with mental retardation, very little is known about the quantity and quality of services they receive to treat their health conditions.

Research indicates that most individuals with mental retardation do not receive the services that their health conditions require. Infact research on the access and quality of physical, mental, ocular and dental health care demonstrates that individuals
with mental retardation receive little medical care, compared with the general population (Wilson and Haire, 1990).

Comparison between the health status of people with mental retardation, when compared with general population indicate that disparities exist. Evidence based research suggests that those with mental retardation not only experiences poorer health than the general population but that they experience greater barriers in accessing health care. Despite the need for physical, mental, ocular and dental health services for individuals with mental retardation, adequate services in this population are not frequently utilized. Individuals with mental retardation has been shown to consult general practitioners less than others with special needs (Jones and Kerr, 1997).

Study findings of Haavio (1995) showed that individuals with mental retardation received less appropriate ocular and dental services than those without. Similarly individuals with mental retardation who receive mental health services often do not receive quality care. Many mental health professionals lack training in providing care to individuals with mental retardation (Moss, 1999). Individuals with mental retardation do not receive adequate dental
care despite the findings that they have poor oral health (Feldman et al., 1997).

The quality of health services received by those individuals with mental retardation who do access care, however, may not be optimal. For example, despite the fact that individuals with mental retardation have an increased prevalence of certain health conditions such as thyroid disease, diabetes and obesity, many of these conditions are not addressed by primary care providers (Wilson and Haire, 1990, Jones and Kerr, 1997).

Jones and Kerr (1997) in fact found that fifty percentages of individuals with Down syndrome from five general practices in Wales never had a thyroid-screening test. Researchers have noted that individuals with mental retardation do not receive preventive or health maintenance activities such as annual health screenings (Wilson and Haire, 1990).

There are numerous reasons including both environmental factors and individual characteristics why the health needs of individuals with mental retardation are not being met. Both nationally and internationally, current systems of health care rely on an individual's ability to recognize the need for care, seek care when necessary and, to some extent coordinate the provision of care.
Those with mental retardation, often lack the ability to recognize health problems, and when they do identify the need for services, many environmental and individual barriers prevent them from receiving necessary care (Wilson and Haire, 1990).

Myers (1982) suggested that inconsistencies in the philosophies and policies of the health and local authorities prevents true integration of care and consequently results in poor overall health care of individuals with mental retardation. Lack of training and experience of primary care providers may have an influence on their willingness to provide treatment to individuals with mental retardation (Waldman et al., 1999).

As a result of poor co-ordination between service sectors, then, individuals with mental retardation often have limited access to certain services, which leads to a poor quality of overall health care. In addition researchers have documented that when individuals are referred for specialty care, the collaboration between primary care providers and specialists about the health of individual patient is limited (Lennox et al., 1997).

Even when individuals with mental retardation are able to access care, other organizational factors such as a lack of continuity of care and insufficient documentation present barriers to the quality
of care received by this population (Haavio, 1995). The majority of individuals with mental retardation did not have a regular source of care. Further researchers have noted that access to health care is compromised for individuals with mental retardation, because there are insufficient tracking systems to inform individuals with mental retardation when it is time for a routine checkup (Haavio, 1995). Documentation problems are also evident in the lack of available medical records, recording case histories of individuals with mental retardation (Martin et al., 1997).

Despite the global emphasis on mainstreaming and normalization, then, nationally and internationally, most community health care systems have been unprepared to meet the health needs of individuals with mental retardation. Physical and behavioural impairments can impede individuals with mental retardation from receiving adequate medical care (Haavio, 1995). They may have difficulty adhering to treatment regimens (Lennox et al., 1997).

Research efforts on health care service use by individuals with mental retardation are scarce. Individuals with mental retardation are susceptible to many of the same health conditions as individuals in the general population, but may experience more
access and quality of care challenges than individual without mental retardation.

The behaviour necessary for maintaining health requires regular medical checkups (Beange et al., 1999) and the organization of managed health care initiatives (Kastner et al., 1997) which include knowledge about the planning of nutritional meals, community safety, home hygiene and engagement in specific illness prevention behaviours.

Despite the high prevalence of health problems among individuals with mental retardation, very little medical care they receive to their health conditions, when compared with the general population (Wilson and Haire, 1990). Further researchers have suggested that individuals with mental retardation have four times more preventable mortality than individuals in the general population (Barr et al., 1999) indicating that medical care may alter the health trajectories of individuals with mental retardation.

Early diagnosis, frequent assessments and intervention can prevent the long term effects of increased prevalence of uncorrected visual anomalies (Barltett, 1987).
Lennox et al. (1997) documented that as a result of poor coordination between service sectors, the individuals with mental retardation often have limited access to certain services, which leads to a poor quality of overall health care. Because individuals with mental retardation have difficulty adjusting to unfamiliar surroundings and thrive in structured routines, consistent and familiar health care providers are particularly important for the treatment of those individuals.

Communication between patients and medical providers is an essential component of quality care. Because many individuals with mental retardation have limited communication skills, providers must rely on caregivers’ reports and observations to obtain accurate medical histories to understand the health complaints of individuals with mental retardation and to communicate treatment regimens (Evenhuis et al., 1992). Individuals with mental retardation often have difficulty determining when they are in need of medical assistance and rely heavily on caregivers to recognize signs of health problems or to schedule routine health care appointments (Wilson and Haire, 1990).

Christophen et al. (2000) did a study to find out prevalence of epilepsy and associated health service utilization for a population with
intellectual disability of 1595 people with intellectual disability, 257 (16.1%) had epilepsy. Findings revealed that institutionalized patients were less likely to be admitted than were those in the community.

Mc Cabe (1993) focused on the data relating to sexual knowledge needs and experience of people with mental retardation and attitudes of caregivers and parents were evaluated. Results revealed that individuals with mental retardation have an unmet need for sexual knowledge, which has occurred, in part, because of the largely negative attitudes of caregivers and parents about the sexuality of these individuals. Their sexuality is either ignored or perceived as a problem. They concluded that adequate sex education must be provided to protect the rights of this population.

Gannotti and Suje (2005) in their study in 20 Korean-American mothers of children with mental retardation to find out their perception on the availability of services found that mothers were satisfied with the availability of services and expertise of professionals.

Wijne (2003) identified that people with intellectual disabilities are among the most disadvantaged groups in the society. Durvasula and Beange (2001) identified that people with mental retardation experience inequalities in health outcomes, and
inequality of health care access. Compared to the general population, this group experiences lower life expectancy and greater prevalence of health problems. However not infrequently these health conditions are either under recognized or inadequately managed, it has also been established that people with intellectual disability do not access preventive health care and health promotion programmes to the same extent as other in the community.

In short individuals with mental retardation experiences limited access to health care. Both environmental and individual barriers prevent them from utilizing public health services.

2.4. Perception of Parents and Teachers on Health Education Needs of Children with Mental Retardation

Parents play a central role in their children’s developmental and educative activities. Parents are the driving force behind many of the services provided to their children (Guralnick, 1994). Parents are potential initiators and advocates of reform (Gibh et al., 1997).

Russell et al. (1999) conducted a study on the efficacy of interactive group psycho-education on measures of parental attitude towards mental retardation. Fifty-seven parents randomized to 10 weeks of experimental and control therapies were assessed using the parental attitude scale towards the management of mental
retardation. The pre and post intervention measurements were done by a single blinded rater and compared. Results revealed that the intervention group had a statistically significant increase in the outcome scores and clinical improvement in the total parental attitude score. The researcher concluded that interactive group psychoeducation is effective for changing the attitude of parents with children of mental retardation and is a viable option to be developed in situations where resources are limited.

Slayton et al. (2001) conducted studies to determine the parental perception of oral health needs of children with disabilities and whether or not they had difficulty in obtaining dental care. A survey of parents of children enrolled in the supplemental security income health plan in Lowa showed that 68% of children had dental needs during the previous year. Of these children parents reported that 9.4% had a big problem getting that care, 8.1% had a small problem getting care and 82.5% stated that getting dental care was not a problem. There were significantly more dental needs reported in children in the older age groups.

Faulks and Hennequin (2000) conducted a study on oral health program in three French Centers for persons with special needs. The program aimed to educate the carers about dental disease, to motivate them with regard to prevention and to improve the oral hygiene and
oral health of the individuals with special needs. The study evaluated the impact of the program in terms of change in attitudes and behaviour expressed by the carers by means of a questionnaire. Following demonstration of oral hygiene techniques on an individual basis, the number of residents who had their teeth cleaned more than once a day rose from 24% to 52% (p<0.05). The percentage of carers able to clean both posterior and anterior teeth of their key residents increased from 24% to 60% (p<0.05). The intervention was successful to improve the oral health of persons with intellectual disabilities and change the attitude of carers.

Katoda (1993) in his study in Japan on parents and teachers praxes of and attitudes to the health and sex education of young people with handicaps found that parents and teachers gave more information about health and sex to their 15-16 years old young people with mental handicaps than to other ages.

Liewellyn et al. (1998) conducted a study to find out the perception of service needs by parents with intellectual disability. 52 parents in metropolitan and rural areas were interviewed. The most common need perceived by parents was help with childcare and child development. Their reported greatest unmet needs was in the community participation area; exploring work options, knowing what
community services are available and how to access them and being assertive, meeting people and making friends.

Wong et al. (2006) conducted a study in China to find out the effect of an education programme on parental knowledge, competency and attitude towards children with mental retardation. Forty parents were included in the study. The findings revealed that family focused approach is crucial for enhancing parenting competency and attitude in caring children with mental retardation.

Walker et al. (1989) conducted a study to find out the perceived needs of parents with children who have chronic health conditions. 910 subjects were surveyed to find out the use of health services. Findings revealed that the expenses perceived by the parents for the utilization of health services are beyond their capabilities. Researchers suggested the need for Governmental support for utilizing important services to meet the special health care needs of children with mental retardation.

Yuker (2005) conducted a study to find out mothers’ perception of their mentally retarded children. Results of the study revealed that mothers’ perception on their mentally retarded children are different from those of special education teachers. Researcher suggested that maternal perceptions are important since it influence their behaviour towards these children.
Even though the studies related to perception of parents and teachers regarding the health education needs of children with mental retardation are limited, the above review clearly reveals that both parents and teachers perceived the need for educating health aspects to individuals with mental retardation to make them more self-dependent.

2.5 Summary

An exhaustive review of the literature and research studies pertaining various aspects of this research problem has been made. Topics such as health education: - concept, aims and objectives, contents and methods, health problems and needs of individuals with mental retardation, accessibility and utilization of public health services, appropriateness to individuals with mental retardation and perception of parents and teachers on health education needs of individuals with mental retardation are discussed in detail.

The review gives comprehensive accounts of the health education aims and objectives, contents and methods. The literature, which was surveyed, helped to identify a number of health problems faced by individuals with mental retardation. Further, the survey points out the necessity of meeting the health needs of individuals with mental retardation. Moreover, the abstracts of
research studies were also included in this chapter. The survey points out the necessity of educating mentally retarded children on general health education aspects. Further, the review throws light on the health education needs of mentally retarded children, their parents and teachers.

The studies and literature surveyed herein have helped the investigator throughout the research work, especially in the designing of the study and in the preparation of the tools and the interpretation of the results. A detailed description of the research methodology followed is given in the following chapter.