2.1. Introduction:

Effective research is always based upon past knowledge. Because, it helps to avoid duplication and provides useful hypotheses and helpful suggestions for significant investigation. Therefore, enables the researcher to be familiar with what is already known and what is still unknown and untested in the particular field. This necessitated the review of related literature.

After describing the specific purposes of research problem are served by the review of the related literature. So, the researcher should adopt for organizing the related literature in a systematic manner. A careful review of different sources as the research journals, books, dissertations, theses, and other sources of information on the problem to be investigated is one of the important steps in the planning of any research study. Review of literature provides useful hypotheses and helpful suggestions for significant investigation.

2.2. Definition of Review of Literature:

Review of related literature refers to the analysis of the summary of the writings of recognized authorities and of previous researches in the particular area. As stated by charter V. Good, “The keys to the vast storehouse of published literature may open doors to sources of significant problems and explanatory hypotheses and provide helpful orientation for definition of the problems, background for selection of procedure, and comparative data for interpretation of results.”

In the words of J. W. Best, “Practically all human knowledge can be found in books and libraries. Unlike other animals that must start a new with each generation, man builds upon the accumulated and recorded knowledge of the past.”
While reviewing the related literature, the researcher should taken into account only those studies that are plainly relevant, competently executed and clearly reported.

2.3. Importance of Review of Literature:

A review of previous works is very essential for any type of investigation which is related to the topic. It helps to allow the researcher to acquaint himself with current knowledge in the field or area in which researcher is going to conduct the research studies. Therefore, it is the most important for the following purposes:

- It enables the researcher to define his problem and the limits of the field. Therefore, the knowledge of related literature brings the researcher up-to-date on the work which others have done and thus to state the objectives clearly and concisely.
- By reviewing the related literature the researcher can avoid unfaithful and useless problems areas.
- Through the review of related literature, the researcher can also avoid unintentional duplication of well established findings. It is no use to replicate a study when the stability and validity of its results have been clearly established.
- Review of related literature gives the researcher an understanding of the research methodology which refers to the way of the study is to be conducted. It also helps the researcher to know about the tools and instruments which proved to be useful and promising in the previous studies.
- Another important reason of reviewing the related literature is to know about the recommendations of previous researchers for further research which they have listed in their studies.

2.4. Sources of Review of Literature:

There are varieties of sources of literature. The following are the main sources of literature which a researcher can make use of:

- Books and Text-Books
• Periodicals, such as year Books, Documents, Almanacs, International Abstracts, Journals, Magazines, etc.
• Encyclopedias
• Almanacts. Hand-books, Year books and Guides
• Abstracts, such as Educational Abstracts, International Abstracts, etc.
• Dissertations and Theses
• Newspapers and other sources like specialized dictionaries, Microfiche, etc from which the researcher can collect information.

At the present study, the researcher basically used Books and Text Books, Periodicals and Abstracts.

2.5. Related Review of Literature:

A review of previous works is very essential for any type of investigation which is related to the topic. It helps to determine the objectives of the study and selecting the methodology and to analyze data with proofs. Here, some previous works already done by others have been reviewed by the investigator, which have distinct relation with the present study.

Review of literature related to the present study focuses on:
2.5.1 Characteristics of mentally retarded children
2.5.2 Causes of mental retardation
2.5.3 Problems of mentally retarded children
2.5.4 Levels of mental retardation
2.5.5 Mental retarded children and the family.

2.5.1 Characteristics of Mentally Retarded Children:

There are several signs and symptoms have been cited as characteristics of mentally retarded children. Sekhon S.S & Sekhon M.K. (2007) states that the general characteristics of mentally retarded children are limited intelligence, social insufficiency, slow reaction, absence of clarity, inability to decide, lack of concentration, inability to learn fast, inability to understand
quickly, little control over impulses, inability to remember, short tempered, lack of co-
ordination, poor sense of judgment, lack of complex sentiments, personality traits, organismic
inferiority, and delay in development.

Institute of Child Development (ICD) NEW Delhi (2011) indicates that mentally
retarded children are those who sit up, crawl, or walk later than other children, they learn to talk
later, or have troubled speaking, find it hard to remember things, does not understand how to pay
for things, they have trouble to understanding social rules, trouble seeing the consequences of
their actions, and have trouble solving problems and or they have trouble thinking logically.

2.5.2 Causes of Mental Retardation

Several factors have been cited as possible causes of mental retardation. Some say that
mental retardation occurs due to genetic and environmental factors.

Study conducted by Ahmad, Dr. Nadeem, Joshi, Dr. H.S., Bano, Dr. Rubeena &
Phalke, Prof. D.B. (2010) on “Study of health status and etiological factors of mentally
challenged children in a school for mentally challenged in rural Maharashtra” and find out that
majority of mentally challenged children (68.0%) are in 5-9 years age group. Most of them were
moderate retardation (43.0%). Down’s syndrome (17.23%) was commonest, followed by Fragile
syndrome (6.89%). In 70.68% children no clinical syndrome was associated with mental
retardation. 60.35% children were offspring of consanguineous marriages. In 63.8% children the
causes for mental were idiopathic, and genetic causes were found in 29.31% children.

Based on the study by Wo Bell, (1995), point out that head injury is a major cause of
death and disability in the pediatric population and TV tip over is an important cause of head
injury in children.

on “Identification and evalution of mental retardation” and indicated that disease like whooping
cough, measles, or meningities can cause mental disability if medical care is delayed or inadequate. Exposure to poisons like lead or mercury may also affect mental ability.

**Patel Sangram Kishor (2009)** conducted an empirical study of causes of disability in India and found that locomotor disability is the most prevalent type of disability affecting the population of all ages in India. Mental problems are highest among working age population, and visual and hearing disability are highest among the aged population. The study also reveals that mental disability is occurring mainly due to serious illness during childhood, head injury in childhood and pregnancy and birth related causes. Old age, cataract, glaucoma and other eye disease are not the main causes for having visual problems while polio, injury other than burns, other illness, stroke, arthritis, cerebral palsy are the main causes of locomotors disability. The study also shows that injury other than burns is a vital cause of having disability in India.

**Namboodiri VMD (2005)** states that mental retardation occurs due to Biological causes and Psycho-Social Causes where Biological causes include- i) Prenatal factors such as Genetic and Chromosomal aberration, Prematurity, Congenital anomalies, Material infections, Intoxications and teratogens during pregnancy and Complications of pregnancy.ii) Perinatal factors such as Birth injury and Kernicterus. iii) Postnatal factors such as Infections, Cerebral Palsy, Trauma and Intoxications; and otherwise Psycho-social factors of mental retardation include Poverty and Malnutrition and Familial mental retardation.

As study conducted by **Rahman Azibur (2002)**, there are three causes of mental retardation. The majority of mental retardation about 52% cases is prenatal causes of mental retardation of children that included Genetic and Chromosomal abnormalities; mental shock and tension of expectant mother. Neo-natal causes of mental retardation are 22% that comprised: asphyxia and pre-matured birth and other remaining 26% of the cases are due Post natal causes comprised infections disease, accident, deprivation of breast milk and brain disorder. The higher incidence of mental retardation used to take place during pre-natal period.
Study conducted by **Gaitan E. & Dunn J.T (1992)** on Epidemiology of iodine deficiency and find out that lack of adequate availability of iodine from the mother restricts the growth of the brain of the fetus, and leads to a condition called hypothyroidism. More common than full-fledged cretinism, as retardation caused by severe iodine deficiency is called mild impairment of intelligence.

**Koren Lisa A., Grether Jutish K., & Selvin Steve (2001)** studied on “The Epidemiology of Mental Retardation of unknown Cause” to describe selected infant and maternal characteristics for children with mild and severe mental retardation of unknown cause. The results of the study was that for both children with mild and severe mental retarded, risk was increased among males, low birth weight children, and children born to women of black race, older age at delivery, and lower level of education. Increased risk for mild mental retarded was found for multiple births, second or later-born children, and children whose mothers were born outside of Carlifornia. Increased risk for severe mental retarded was observed among children born to Hispanic mothers; children born to Asian mothers also had increased risk for severe mental retardation but decreased risk for mild mental retardation.

**Persha Amarjyothi, Arya Saroj, Nagar R.K., Behera P., Verma R.K. & Kishore M.T. (2007)** conducted a study on “Biological and Psychosocial Predictors of developmental delay in persons with intellectual disability: Retrospective case-field study” to identify the biological and psychosocial factors associated with developmental delay resulting in intellectual disability. The results indicated that maternal age at conception; foetal presentation; neonatal seizures and infections are the best indicators of developmental delay characteristic of intellectual disability. Psychosocial variables such as emotional trauma during pregnancy, economic status and education of parents had no significant impact on development.

Study by **Thuppal M. and Narayan J. (1990)** indicate that Infection in brain, birth anoxia and trauma were major aetiological categories in addition to a large number forming unknown category.
Deave T., Heron J, Evans J, et al. (2008) observed that maternal depression during pregnancy and postpartum has been shown to be associated with developmental delay in children at 18th of age. After further adjustment for postnatal depression, the effect sizes were slightly attenuated.

According to recent literature (The Arc 2001), the causes of intellectual disability are categorized as follows:

i) Genetic Condition:

These results from abnormality of genes inherited from parents, errors when genes combine, or from other disorders of the genes caused during pregnancy by infections, overexposure to X-rays and other factors. There are many genetic diseases associated with intellectual disability. Inborn errors of metabolism which may produce mental retardation, such as PKU, fall in this category. Chromosomal abnormalities have also likewise been related to some forms of intellectual disability, such as Down Syndrom and Fragile X Syndrome.

ii) Problems during Pregnancy:

Use of alcohol or drugs by the pregnant mother can cause intellectual disability. Malnutrition, rubella, glandular disorders and diabetes, cytomegalovirus, and many other illnesses of the mother during pregnancy may result in a child being born with intellectual disability.

iii) Problems at Birth:

Prematurity and low birth weight predicts serious problems more often than any other conditions. Difficulties in birth process such as temporary oxygen deprivation or birth injuries may cause intellectual disability.

iv) Problems after Birth:

Childhood diseases such as whooping cough, chicken pox, measles, and Hib disease that may lead to meningitis and encephalitis can damage the brain as can injuries such as a blow to
the head or near drowning. Substances such as lead, mercury and other environmental toxins can cause irreparable damage to the brain and nervous system.

v) Poverty and Cultural Deprivation:

Children in poor families may become mentally retarded because of malnutrition, disease-producing conditions, inadequate medical care and environmental health hazards. Also children in disadvantaged areas may be deprived of many common cultural and educational experiences provided to other youngsters. Research suggests that such under-stimulation can result in irreversible damage and can serve as a cause of intellectual disability.

Doctors have found that the most common causes of intellectual disability (NICHCY Disability Fact Sheet 8) as follows:

- **Genetic conditions:** Sometimes an intellectual disability is caused by abnormal genes inherited from parents, errors when genes combine, or other reasons. Examples are Down syndrome, Fragile X syndrome, and PKU.
- **Problems during pregnancy:** An intellectual disability can result when the baby does not develop inside the mother properly. For example, there may be a problem with the way the baby’s cells divide as it grows. A woman who drinks alcohol or gets an infection like rubella during pregnancy may also have a baby with an intellectual disability.
- **Problems at Birth:** If a baby has problems during labor and birth, such as not getting enough oxygen, he or she may have an intellectual disability.
- **Health problems:** Diseases like whooping cough, the measles, or meningitis can cause intellectual disabilities. They can also be caused by extreme malnutrition, not getting enough medical care, or by being exposed to poisons like lead or mercury.

2.5.3 Problems of Mentally Retarded Children:

Mentally retarded children have various problems under different domains at different levels. Rahman Azibur (2002) studies indicate that the general problems of mentally retarded children are adjustment problem, behavioral problem, aggressive behaviour, hyperactivity, habit disorders and physical problem, eating problem. The major complain revealed negativism,
quarrelling nature, restlessness, irrelevant talk, delayed development, forgetfulness, poor attention, low intelligence, self injurious, speech and hearing problem, disobedience, tearing of clothes, throwing food, attention seeking behaviour, biting others, stubborn, short tempered, lazy and clumsy. Most of the problems are hyperactive (81.48%) and have eating problem (91.30%) and have behavioral problems (77.78%).

Study by Thuppal M. and Narayan J. (1990) on “A study of persons with severe mental retardation and multiple disabilities” and observe that the major presenting complaints of severe mental retarded persons are in the area of self help, language, epilepsy, motor problems and behavior problems.

2.5.4 Levels of Mental Retardation

There are differences among writers regarding the classification of mental retardation and the terminologies used for each level of retardation. Ahuja Niraj (2011) states that there are four levels of mental retardation based on Intelligence Quotient. Namely: mild, moderate, severe and profound mental retardation.

Mild Mental Retardation (IQ 50-70) is the commonest type of mental retardation accounting for 85%-90% of all cases. The diagnosis is made usually later than in other types of mental retardation. In the preschool year these children often develop like other normal children, with very little deficit. But later they often progress up to the 6th class in school and can achieve vocational and social self-sufficiency with a little support. Only under stressful conditions or in the presence of an associated disease, supervised care may be needed. They used to be referred as the “Educable group” of mentally retarded children.

Moderate Mental Retardation (IQ 35-50) type accounts for about 10% of all cases. As adult they reach 2nd class (grade) level of academic skills. In the early years, despite a poor social awareness, these children can learn to speak. They can be trained to support themselves by performing semi-skilled or unskilled work under supervision. A mild stress may destabilize them
from their adaptation; thus they work best in supervised occupational settings. They are usually referred as the “Trainable group”.

Severe Mental Retardation (IQ 20-35) is often recognized early in life with poor motor development and absent or markedly delayed speech and other communication. With training they are able to develop self proactive skills and simple tasks can be performed under close supervision. They are usually called as Dependent group.

Profound Mental retardation (IQ below 20) group accounts for about 1-2% of all persons with mental retardation. The associated physical disorders, which often contribute to mental retardation, are common in this subtype. The achievement of developmental milestones is markedly delayed. They often need nursing care or ‘life support’ under a carefully planned and structured environment (Ahuja Niraj 2011).

According to Hayes (1994), people who have IQs ranging from about 50 to 60 are usually considered as mildly retarded. The great majority of all mentally retarded persons are reported to be in this group. Hayes also notes that mildly retarded children cannot progress normally in ordinary schools; in special upgraded classes, and with time and effort, these children may learn to read, write and do simple arithmetic problems.

Hayes (1994) also state that children of moderate group, who’s IQ score ranges from 35 to 49. They can not respond to the teaching of ordinary school subjects. In special schools, they can learn to take care of themselves to a certain extent in day-to- day routines of life. However, they need to be told when and to do these activities.

Again Hayes mention that severe retarded person that with IQ’s between about 20-34, have an intellectual ability similar to that of a normal 3 years old child. Some are noted to be so low in intellectual ability that can not understand the simplest statement or utter a single word. Often they wash and dress themselves; some cannot eat and drink, or take care of other bodily needs without help. They do not know to avoid the ordinary dangers of life.
In terms of profoundly retarded Hayes (1994) note that individuals in this group, who’s IQ score is usually below 20. Particularly they show almost no response to their environment. They require complete care and supervision.

2.5.5 Mental Retarded Children and the Family.

A mentally retarded child in a family is usually a serious stress factor for the family.

Kumar S. and Mohanty S. (2011) study indicates that the family efficiency of both father and mothers in affected equally due to the presence of a child with mental retardation. However, in comparison the study also revealed that mothers are affected more than the father. Mothers position is in peak and more active in the child’s care and the burden associated to child’s physical care.

Gohel Manisha, Mukherjee Sidhyartha & Choudhary S.K. (2011) conducted study on Psychological impact on the parents of mentally retarded children in Anand District, and result that there were 45% having mild mental retarded, 46% moderate and 9% with the severe mental retardation, out of which 69% were male and 31% were female. There was no significant association found between specific thoughts of parents and type of mental retardation. There was no significant loss of support to parents from spouse, family, in laws, relatives, friends and neighborhood. Unemployed fathers had significantly more negatively affected relationship than the rest of the fathers. There was not significant association found between type of mental retardation and sibling effects.

Rao (1994) study also indicate that the parents have a negative attitude towards their children with mental retardation.

A study by Upadhyay Shambhu & Singh Anju (2009) observed that the level of psycho-social problems faced by the parents of mentally retarded children increases with the level of mental retardation of the child. Therefore, parents of moderately related children
registered more problems, in all aspects, compared with parents having mildly retarded children. The parents of both retarded children expressed fulfillment of different needs. The mildly retarded parents’ needs were more of preventive and adjustment nature where as parents of moderately children were more concerned with life long adjustment and financial security, including government help, of their children.

Majumder Mita, Pereira Yvonne da Silva & Fernandes John (2005) state that the level of parental education and family income had an impact on the perceived stress and anxiety manifested by parents of mentally retarded children in equally parents of profound to moderately mentally retarded children and in parents of mild to borderline mentally retarded children.

Gathwala G. and Gupta S. (2004) indicate that sixty percent of families were severely burdened in relation to the item “Effect on the physical health of other family members” which included physical/ psychological illness and members of the family becoming depressed and weepy. Forty-five percent of families felt severely burdened regarding family interaction and had almost ceased to interact with friends and neighbors. Forty percent had family leisure severely affected and they had stopped normal reaction and had frequently abandoned planned leisure with the affected child using up most of their holiday and spare time. Thirty-five percent of cases had their family routine severely affected, leading to neglect of rest of the family. Only twenty-five percent of families felt were severely burdened financially. Twenty percent had postponed planned activity due to financial constraints.

Ravindranandan Vidya & Raju S. (2007) state that parental religion, income, and education do not have any significant influence on adjustment variables, but there is change in parental attitude among different religious groups. Locality of parents influences only on the dimensions of social adjustment and parental attitude.

Chandorkar Hemant & Chakraborty (2000) studied on Psychological Morbidity of Parents of mentally Retarded Children, and conclusively proved that the parents of mentally
retarded children had a higher prevalence of psychological morbidity than the parents of normal children.

2.6. Conclusion:

Mentally retarded children are those who are unable to keep pace with the normal children. There are so many problems of mentally retarded children as behavioural, academic, motor development, social interaction, poor memory and attention, problem of SHS, etc. As a special problem, the care, special education and training of the MRC is of utmost importance and significance. Various causes are responsible for mental retardation of children at different period. From the various study of related literature about mentally retarded children it can be noted that mentally retarded children should not be neglected. There are so many ways and means to develop their behaviour and attitude and to establish them as normal children as far as possible.