Chapter 2

REVIEW OF LITERATURE
Chapter 2

Introduction

Review of literature suggests that there are many risk factors operate in the society which makes the children vulnerable for mental health issues. Apart from the genetical factors, many other nurturing aspects play a significant role in the mental health of the population. The risk factors varies from maternal nutrition, inadequate knowledge and skills in parenting, sleep, exercises, nutritional diet, childhood trauma, inadequate attachments, inadequate parenting skills, lower childhood stimulation, inadequate learning opportunities, negative media influence, drugs and alcohol, poverty and insufficient resources, negative peer influence, unhealthy physical environment, impulsivity, demotivating environment etc are a few them.

School is supposed to be a buffer mechanism that protects the children from all the possible risk factors. There are ample evidences that shows early interventions and school based intervention are effective to realize their full potential. But unfortunately most of these evidences come only from United States and these evidence based intervention models are not been tested in the developing countries. In the review of literature the researcher tries to look at these evidences to develop culturally customized intervention models.

Realizing the need and scope of school level interventions, Government of Kerala has appointed more than five hundred school social workers in the government schools. Central Board of Secondary Education (CBSE) has insisted on the appointment of school social workers in their affiliated schools. Still the number of professionals appointed is negligible when compared to more than 15 lakh students studying in all these schools (Department of education, Government of Kerala). Availability of mental health human resource is a major concern shared by many of the mental health scientists.
There are glimpses of hope from International and National scenario in the area of mental health, such as WHO Mental Health action Plan, mh GAP intervention program and call for rights based legislations in the member countries.

The Lancet reviewed five years developments in the area of public mental health (2007-2012) after the publication of first series of articles on public mental health in the year 2007, but evidences have proved that much has not happened in this area. The low and middle income countries are still struggling with basic mental health facilities; many countries have not modified their legislations more than that most of these countries have not enhanced their mental health budget. It is a pointer to lobby for ensuring adequate political will and enhanced budget. The focus of the review is to find out available evidences in the school mental health interventions, identify the exposures and develop an intervention appropriate for the culture, implement it and test it for its effectiveness.

**Demographic dividend**

Children and adolescents constitute almost one third (2.2 Billion individuals) of the world’s population and almost 90% of them live in low income and middle income countries (LMIC), where they form up to 50% population (UNICEF, 2008). India has more than 50% of its population below the age of 25 and more than 65% below the age of 35. It is expected that, in 2020, the average age of an Indian will be 29 years (India census report, 2011).

Mental disorders affect 10–20% of children and adolescents worldwide, with similar types of disorders across cultures (World Health Report 2001; Verhulst FC. 2004). According to national co morbidity survey replication in USA, 75% of people with a mental disorder had an age of onset younger than
24 years and most disorders likely to get extended to adult life including the depressive and anxiety disorders, psychosis, substance use and eating and personality disorders. Australian national Survey of mental health and well being (Sawyer MGAF, et al., 2000.) reported that at least 14% of adolescents younger than 18 years were diagnosable with a mental or substance use disorder and this figure rose to 27% in the 18-24 year age group. Taking the research findings around the globe, at least one out of every four to five young people in the general population will suffer from at least one mental disorder in any given year. This points to the urgency of early identification and treatment to minimize the deficits, disability and mortality.

**Treatment Gap**

Though the concerned people are convinced of the necessity of mental health services, there is a huge gap in mental health services for children and adolescents with mental disorders in all countries. The WHO Atlas on child and adolescent mental health resources (WHO, Atlas child and adolescent mental health resources- 2005) attempted, systematically to identify the gap in resources for child and adolescent mental health. In the USA, for example, 31% of people are affected by mental disorder every year, but 67% of them are not treated. (Kessler RC, Demler O, Frank RG, et al. 2005). The proportions of people with mental disorder who are treated in low-income and middle-income countries are even lower than in the USA and UK; for example, a global survey reported that only 11.1% of severe cases of mental disorder in China had received any treatment. Every year up to 30% of the population worldwide has some form of mental disorder, and at least two-thirds of those people receive no treatment, even in countries with the most resources. (Kohn R, et al., 2004). The prevalence of BPD in general population is 1.5%-2% and is diagnosed 10%-20% among psychiatric patients. Mortality in this group is
high because of a suicide rate of about 10%. BPD is considerably more diagnosed in women than men (Johnson et al., 2003). A few other data suggests that only one third of people with mental health disorders are treated in high-resource countries, and as few as 2% of people with such conditions are treated in some low-income and middle-income countries. (Wang PS, et al., 2007; Thornicroft G. 2007)

**Mental Disorders; a public health challenge**

Mental disorders are risk factors for, or consequences of, many other health problems; they contribute to mortality (most notably through suicide); and they directly affect progress toward achievement of many of the Millennium Development Goals (MDGs) (Prince M, Patel V, Saxena S, et al. 2007). Information about the life time financial costs and long term morbidity associated with mental disorders that begin in childhood is beginning to be reported (Kotler, LA, 2001; Leibson CL, et al., 2001). Failure to address mental health problems, including developmental and intellectual disorders, in children and adolescents in low resource settings is a public health issue with wide reaching consequences because such failures retard the achievement of basic developmental goals of the countries (Sachs JD, et al., 2005). The suffering, impairment, exposure to stigma and discrimination and increased risk of premature death that is associated with mental disorders in young people has obvious public health significance. This significance is amplified, since mental disorders in young people tend to persist into adulthood (Costello EJ, 2006).

Apart from that the disadvantaged children, due to poverty and other risk factors, fail to reach their developmental potential. Consequently they less likely to be productive citizens due to many reasons such as; fewer years of
schooling and less learning per years in schools. Studies from 51 countries show that, on average, each year of schooling increases wages by 9.7% (Psacharopoulos G et al., 2004). The dropping out or fail to pursue their studies has long lasting impact; in terms of type of job, income and standard of living which consequently makes them frustrated and anxious. Therefore the child mental health is a public health as well as a development challenge. The public health challenge demands public health strategies to reach out to the vast majority of people especially most vulnerable sections of the population.

Risk Factors

Various bio psycho socio, cultural, economic and political risk factors are operating in the society that makes people vulnerable for mental illnesses.

Gender and mental disorder

Gender is an important determinant of mental disorders (Oliver MI, et al., 2005). There is a gender variation in the distribution of mental illnesses. Studies have proved that young women are 1.5-3 times more likely to have depressive disorders and attempt self harm where as young men are several times more likely to suffer from conduct or behavioural disorders and schizophrenia (McGrath JJ. 2006). These variations are ascribed to difference in the type of exposure to biological and environmental risk factors. In many countries, more women than men meet criteria for common mental disorders such as anxiety and depression. In Chile, Araya and colleagues (Araya R, et al., 2001) showed that women, and especially those with little education and from low social classes, had high rates of common mental disorders. Patel and co-workers (Patel V, et al., 1998) showed that nearly half of people who attended primary care in India had common mental disorders, and such disorders were associated with poverty and female sex.
Violence and Mental Disorders

Violence and child abuse are major risk factors (Sansone RA, 2005), it is found that most of the sexual violence takes place in the context of trusting relationships (for e.g. peers or relatives), whereas most violence in general takes place in the school or community, in both instances, older peers are the most perpetrators. Up to 70% of patients with borderline personality gives a history of abuse (Patel V, et al., 2001). Trauma is a major etiological factor (Herman & Van Der Kolk, 1987). About one third of patients with borderline personality disorder report severe abuse: about one third report milder forms of abuse. A considerable proportion of BPD patients (25 to 75%) report a history of sustained adverse childhood experiences like emotional neglect, sustained physical and/ or sexual abuse, or domestic violence. BPD patients report significantly more severe traumas before the age of six than non BPD (53%vs. 13%). Abuse, neglect and environmental instability, parental psychopathology, and lower scores on protective factors are reliable predictors of the development of the BPD in persons constitutionally predisposed for the disorder ((Patel V, et al., 2001). Sexual abuse appears to be only one of the many risk factors. It necessitates sufficient preventive mechanisms through age appropriate sex education and imparting knowledge about the rights of the children. The stringent laws also should be a strategy to ensure mental health of the children. The Child line, free telephone service for children is an effective step towards the protection of children from abuses.

Educational Pressure and Mental Disorders

Educational pressures are mounting on the students due to many reasons. High parental expectation, limited decent employment opportunities etc enhances the educational pressure and thus become a risk factor for suicide.
and poor mental health (Vijayakumar L, 2005; Commission on Adolescent Suicide Prevention. 2005).

**Neurological Disorders and Mental Disorders**

Neurological disorders, such as epilepsy, and developmental disorders, such as learning disabilities are also associated with an increased risk (Kokkonen ER, *et al.*, 1998). Strong evidence is available for the contribution of genetic and biological factors, particularly for depression, psychosis and severe behavioural disorders. Genetic and biological factors interact with family environment and social factors such as school and as a result become great risk factor for emotional and behavioural disorders (Deater-Deckard K, *et al.*, 1997).

**Personality disorders; brain development and personality patterns**

Clinical studies suggest that at least three sets of environmental factors contribute to borderline personality disorder: family factors such as family breakdown, parental loss, and attachment problems: trauma and deprivation: social and cultural factors including societal change (Paris, 2001).

Chronic traumatic stress or an accumulation of adverse childhood experiences (ACE) is strongly associated with the development of severe personality disorders, chronic depression, and to a lesser extent post-traumatic stress disorder (PTSD) in adulthood (Felitti *et al.*, 1998). Preclinical stress studies and neurobiological research with humans with chronic childhood abuse experiences provide convincing evidence that chronic (traumatic) stress has a tremendous impact on brain development with a broad variety of persistent functional alterations. This concerns dysfunction of the central serotonergic system or a hyperactivity of the hypothalamic pituitary adrenal (HPA) axis. This trauma related neurobiological alterations due to the
exposure to adverse childhood experiences play a crucial role in the development of personality pathology and other severe psychopathology.

**Poverty**

Poverty is associated with inadequate food, poor sanitation and hygiene, increased infections and stunting in children, poor maternal education, increased maternal stress and depression (Hamadani J., 2004; Baker-Henningham et al., 2003) and inadequate stimulation in the home. All these factors detrimentally affect child development (Schady N, et al., 2005). Poor development leads to poor school achievement, which is further worsened by poor school and family support which is very important predictor of child mental health.


Cross sectional study in Ecuador reported that the language deficit in poor children increases from 36- 72 months age compared with wealthier children (Schady N, et al., 2005). In Guatemala, height at 36 months was related to cognition, literacy, numeracy and general knowledge in late adolescence (Martorell R, et al., 1992). In Ecuador, wealth was related to vocabulary scores of children from 3-6 years of age. Poverty and poor development (Richter LM, et al., 1995).

**Poverty and its correlates**

Poverty and social disadvantage are strongly associated with mental disorders (Duarte CCH, et al., 2003; Earls F. 2001; Patel V, et al., 2003;
Leinonen JA, et al., 2003). Pathways suggests that this association is complex and bidirectional; growing up in a poor household increases the risk of exposure to adversities such as scarcity of food, poor nutrition, violence, inadequate education, and living in a neighbourhood characterized by absence of social networks, all of which are risk factors for mental disorders (Patel V, et al., 2001). Conversely, mental disorders contribute to educational underachievement, loss of employment, and increased health care costs. Young people living in families with parental mental disorders (Patel V, et al., 2006; Leinonen JA, et al., 2003; Lapalme M, et al., 1997) or substance abuse (Obot ISA, et al., 2004) discard between parents, marital violence and breakdown are at greater risk of mental disorders.

Two principal causal pathways have been identified. According to the social causation hypothesis, conditions of poverty increase the risk of mental illness through heightened stress, social exclusion, decreased social capital, malnutrition, and increased obstetric risks, violence, and trauma. (Lund C, Breen A, Flisher AJ, et al. 2010; Patel V & Kleinman A. 2003; Flisher AJ, Lund C, Funk M, et al., 2007).

Conversely, according to the social selection or social drift hypothesis, people with mental illness are at increased risk of drifting into or remaining in poverty through increased health expenditure, reduced productivity, stigma, and loss of employment and associated earnings. (Saraceno B, et al. 2005). The social causation pathway might apply more readily to common mental disorders such as depression, whereas the social selection hypothesis might be more applicable to disorders such as schizophrenia and intellectual disabilities (Saraceno B, et al. 2005). The WHO Mental Health and Development report (WHO. Mental Health and Development, 2010) emphasised the importance of
mental health as a development issue in countries with low and middle incomes, providing compelling evidence that people with mental disorders constitute a vulnerable group who need to be targeted in development assistance.

**Socioeconomic status**

Poverty is linked to poor health status. Poverty is more than low-income or low consumption; (Maxwell S. 1999) it encompasses non-monetary aspects such as social exclusion, social vulnerability, and denial of opportunities and choice. For example the UN Development Programme has designed the Human Development Index as a comparative aggregate measure of life expectancy, literacy, education, and standard of living, (UNDP. Human development report. 2006) and the World Bank has identified increased opportunity, empowerment, and security as means to overcome poverty. (World Bank. World development report, 2001). Children born into poverty face various risk factors for mental and physical illness. Risk factors in poor children’s families and communities combine with scarcity of protective factors to increases the likelihood of mental health problems and developmental disabilities. (Richter, LM. 2003; Durkin, M. 2002). Relative poverty and inequality within communities are associated with increased risk of mental health problems (Murali V& Oyebode F. 2004).

Poverty and its associated psychosocial stressors, such as violence, unemployment, and insecurity, are correlated with the onset of adult mental disorder. (Cullen M & Whiteford, H. 2001; Patel V & Kleinman A 2003). The investigators suggested that poor education could be a marker for childhood adversity, which increases the risk of mental illness (Patel V, et al., 2003).
Evidence from a conditional cash transfer program in Mexico for more than 20 million people showed that transfers to women plus direct nutritional supplements for young children and nutritional supplements for young children and nutrition education (Behrman JR, et al., 2005) were associated with children’s improved growth and motor development (Gertler P, et al., 2004; Hoddinott J, et al., 2004).

**Academic performance and poverty**

The disadvantaged children are likely to do poorly in school and subsequently have low income, high fertility and provide poor care for their children, thus contributing to the intergenerational transmission of poverty. There is growing international evidence that mental ill health and poverty interact in a negative cycle (Patel V, Lund C, Hatherill S, et al. 2010).


**Lifelong risk factors**

Life-long risk factors consists of the genetic background, problems in the physical health and nutritional status of the child, (Zashikhina A, et al., 2007), the physical and mental health of careers,(Benjet C. 2010), loss of careers or being orphaned, (Ruiz-Casares M, et al., 2009), being raised in institutions, (Erol N, et al., 2010), deficiencies in the psychosocial and educational environment, exposure to harmful substances and toxins, (Roy A, et al., 2009), violence, (Panter-Brick C, et al., 2009), armed conflict and war,
Review of Literature

(Harel-Fisch Y, et al., 2010; Layne CM, et al., 2010; Qouta S, et al., 2008), forced displacement, (Mels C, et al., 2010), immigrant status, (Wong ST, et al., 2010), natural disasters (Jia Z, et al., 2008; Li X, et al., 2010), gender disparity (Rudatsikira E, et al., 2007), severe physical punishment, (Bordin IA, et al., 2009), and abuse or neglect (Benjet C, 2010).

Age-specific risks

Age-specific risks can be identified as early as the preconception period, which spans the transition from adolescence to adulthood of prospective parents. Research based evidence from LMIC links adolescent parenting, (Rodriguez JD, et al., 2011), unintended pregnancy, (Iranfar S, et al., 2005) inadequate birth interval, (Bella H, et al., 2005) and parental consanguinity (Abu-Rabia S, et al., 2005) as preconceptional risk factors for child mental health problems. Evidence exists that reduced maternal haemoglobin during the prenatal and prenatal period is related to poor education outcome of offspring, which is measurable even when the child reaches age 30 years. (Fararouei M, et al., 2010).

School related Risk Factors

Risk factors such as perceived obesity, (Lo WS, et al., 2009), academic difficulties, bullying in school, (Chaux E, et al., 2009), family dysfunction, (Lee S, et al., 2011), child labour, (Bandeali S, et al., 2008), physical and sexual abuse, (Curto BM, et al., 2010) use of tobacco, alcohol, and drugs, (Miller M, et al., 2010), pathological use of the internet, (Lam LT, et al., 2010) have been shown to jeopardise the mental health of children, adolescents, and adults.

The early years of life are the period of maximum brain growth and of formation of emotional regulatory patterns that affect later mental health.

Impact of Family Social Work Intervention on the Holistic Development of Children
outcomes. (Shonkoff JP, et al., 2009). Important evidence exists that mental health risk factors specific to the school age period (from ages 5 to 18 years, with variable definitions across countries) are prevalent in LMIC. A representative study of 3005 adolescents in Mexico City showed that 68% had at least one type of chronic adversity. Risk factors in poor children’s families and communities combine with scarcity of protective factors increases the likelihood of mental health problems and developmental disabilities (Richter, LM., et al., 2003; Durkin, M. 2002).

**Maternal depression**

Maternal depression has long been known to be associated with children’s cognitive, emotional and other developmental problems (Murray et al., 1993; leschied et al., 2005), and also with an increased risk of abuse and neglect (Sheppard, 1997) and it is also linked to insecurely attached than children whose mothers do not have mental health problems (Cicchetti et al., 1998). Additionally, maternal depression and lack of psychosocial stimulation affect infant growth and cognitive and socio emotional development (Eisenberg L, et al., 2009).

**Paternal Occupation**

In a study conducted in 3668 Indian children under 6 years, to understand the relationship between the paternal occupation and developmental milestones proved that paternal occupation was associated with developmental milestones (Vazir S, et al., 1998).

A study conducted in south India reported that suicide accounted for a quarter of deaths in boys and between half and three – quarters of deaths in girls aged 10-19 years (Aaron R, 2004). Rates of suicide have increased
(especially in Boys) for most of the countries where data are available from the mid 1950, until early 1990s (Gould MS, et al., 2003). This trend is attributed to increases in rates of depression, the diminishing influence of the family, increased freedom and increased exposure to alcohol and other drugs (Commission on Adolescent Suicide Prevention. 2005; Hammad TA, et al., 2006).

In Sri Lanka, a country with very high suicide rates (Eddleston M, et al., 1998) a community-befriending programme in a rural village decreased suicidal behaviour in the intervention village from 13 suicides during the 6-year pre implementation period to no suicides at the end of the time-series trial (Goldney RD, 2005).

**Protective factors**

Studies emphasised that most of the young people do not have any mental disorder even most of those who face severe adversities and multiple risk factors remain in good mental health (Richter LM. 2006; Graham P. 2004). Protective factors crucial to understand how the effect of risk factors can be modified and even eliminated. Cross national studies done in China and USA (Jessor R, et al., 2003) has shown the role of protective factors in mitigating the risk for risk behaviours (such as delinquency, problem drinking and substance abuse) in adolescence. In both settings protective factors played a powerful role in mitigating the effect of risk factors for problem behaviours, suggesting the importance of these factors in promoting mental health. Protective factors are sense of connection, low levels of conflict and an environment in which the expression of emotions was encouraged protects against development of behavioural or emotional disorders (McGee R, et al., 1990; Williams S, et al., 1990).
Social Support

Social Support is an important psychosocial buffer in the face of other risk factors (Birmaher et al., 1996; Greening L, et al., 2002; Joiner T. 2002; Lewinsohn PM, et al., 1998).

Parenting

Attachment and Mental Disorders

Manassis et al. (1994) found insecure attachments in 80 percent of children whose mothers had anxiety disorders. Depression increases likelihood in children developing insecure attachment (Goldberg, 2000). Complex interactions involved in the relationship between mental health, attachment and psychopathology in children. Parental psychiatric disorders result in deficit in emotional understanding. Insecurely attached children are at a greater risk of emotional and behavioural problems (Greenberg, 1999). Abusive, frightened or frightening care givers can affect children’s mental representations of themselves and of other people; their internal working models (Bowlby, 1973; Howe et al., 1999) Hill (2004) proposed various ways by which parental mental illness affect attachment process, it may affect parent–child relationship, due to disorder and other resulting psycho social risks and due to inadequate sensitivity and responsiveness.

Attachment, neuro biological impact and behavioral outcomes

People with anxious / ambivalent/ enmeshed attachment styles where mix of clinging and hostility towards others alienate potential support figure which is established from inadequate responsiveness of early care givers. Avoidant attachment styles; they avoid intimacy and as a result they fail to get the support. They defensively devalue the relationships and feel comfortable in doing things alone, or being alone.
Attachment behavior is activated when they feel frightened or helpless and during this time the person want access of proximity to an attachment figure, especially when they are frightened. Harlow’s (1974) monkeys experiment showed that the longer and the earlier the infant monkeys were separated from their mothers, the more anti-social their behavior was in adulthood, (the attachment behavior in humans involves major part of the right hemisphere and the supra orbital area of the brain, that is crucial in the development of empathy and capacity for adequate social relationships). The threatened sense of security will express through initially by protest then despair and finally detachment (Bowlby 1973).

Sensitive response; attunement’, is normally provided by mother. This attunement is extremely important as it is through this matching of inner states between mother and infant, is termed as ‘affect attunement”. Which helps the infant to modulate emotions. This modulation is achieved by responding to child’s signals through holding, caressing, feeding, smiling etc. This daily interactions also provide the infant brain with interactive memories (which helps to develop ‘Internal working models (Bowlby 1988). This internal working model helps the development of infants’ sense of self. If the infant had satisfactory attunement between caregiver and infant, it will result in a sense of security for the child. Securely attached children will feel confident and capable of empathizing with others and form good attachment, not only with the primary attachment figures but in adolescence, peer group attachments and in marriage attachment with the spouse and significant others. Having child’s mind in parent’s mind is defined as ‘reflective functioning’ (Fonagy & targel, 1997). This reflective functioning enables the child to make sense of other people’s mental states. Personality disorder related studies have proved that insecure attachment is a major contributor to it.
Fight – flight response is mediated by sympathetic component of the autonomic nervous system. So whenever the infant is under danger, even in the perceived danger, the autonomic nervous system get activated that results in increased heart rate, blood pressure, respiration and muscle tone and hypervigilance. Symbolic processing is not possible in such states and as a result these traumatic experiences are stored in sensory, somatic, behavioral and affective states.

**Parenting, parenting skills**

Child development module developed by WHO and UNICEF has recommended play, communication and responsive feeding as most crucial to improve the mental health of the children.

The early parenting programs should integrate health, nutrition, education, social and emotional development. Parents and family should be considered as partners with teachers. Teachers and the society should not doubt about parental aspiration of developing their children into their full potential. Community health worker interventions with significant intensity and duration using successful models should be considered as important as nutritional interventions. Schools should provide opportunities for children to initiate and instigate their own learning and exploration of their surroundings.

**Parenting Interventions to Promote attachment**

Parenting interventions promote parent-child interactions to improve responsiveness in feeding infants and young children (Aboud FE, et al., 2011; Bentley ME, et al., 2010), increase attachment (Cooper PJ, et al., 2009; Klein PS, et al., 2004) and encourage learning, book reading, play activities (Jin X, et al., 2007), positive discipline (Leung C, et al., 2003) and problem solving related to children’s development, care and feeding (Ertem IO, et al., 2006).
**Parenting and concept of Resilience**

Single most important factor for building resilience in youth is to enable parents to provide adequate psycho social stimulation during early childhood. Study on resilience- “the key to giving young people a good start in life is to help their parents” because people’s response to adverse situations are shaped by early life experiences (Bartley M. 2006).

**Parenting and educational support**

Substantial positive effects on child development were identified in all 11 effectiveness studies, nine on cognitive or social emotional development and two on parent knowledge, home stimulation and learning activities with children (Ertem IO, et al., 2006; Al-Hassan S, et al., 2011). Which are associated with child development (Bradley RH, et al., 2005). Effect sizes were larger for interventions that included both parent and child programmes than for parent only programmes. In some cases, effects were greater for younger children compared with older children (Janssens W, et al., 2011) and for poorer children compared with richer children (Palti H, et al., 1982; Engle PL, et al., 2011). Effects for some information based parent only interventions were small (Al-Hassan S, et al., 2011).

**Parenting Interventions for Holistic Child Development**

A recent review of home visiting programmes reported that higher frequency of contact was related to effectiveness (Walker S. 2011). In Ecuador and central Asia moderate but consistent effects on child development were identified. In Ecuador, the programme *Educatu Hijo* (Educate your Child) was adapted from Cuba’s model, which combines health care with a carefully structured parenting programme coordinated by the health sector and
community committees. Children in the programme had higher cognitive scores than those not in the programme.

In central Asia, the assessment of the implementation of the Care for Development module of Integrated Management of Childhood Illness noted that children’s developmental scores were substantially higher in intervention districts than in similar control districts. There were also improvements in parents’ activities with children and in health-worker recommendations.

The Care for Development module developed by WHO and UNICEF, trains health workers to provide specific behavioural recommendations to caregivers about play, communication, and responsive feeding. (WHO. Documents on integrated management of childhood illness, 2010).

Community Based Parenting Interventions

Two Programs used group sessions with mothers in Turkey, where mothers practiced skills to play with their children, there were short term and long term effects on child development (Kagitcibasi C, et al., 2001). In Bangladesh, mothers’ knowledge of child development and child rearing increased after information based sessions, but there was no effect on child development (Aboud F. 2013) perhaps because there were no practice of skill based activities with families. The integrated child development services (ICDS) in India began in 1975, and provided counselling to pregnant and lactating women about nutrition, growth monitoring for children 0-5 years, and feeding and preschool centres for children 3-6 years old. The programme has been implemented at low cost and currently serves more than 30 million children (Rao N. 2005).

Most prevention studies from low-income and middle-income countries focused on early psychosocial stimulation (Engle P, et al., 2007). Outcomes
with relevance to mental health included improvements in maternal responsiveness, child psycho physiological functioning, cognitive development, problem solving, and self esteem, and reductions in parental distress and maternal depression.

Key to promoting child mental health is through strengthening of the fundamental nurturing qualities of the family system and community networks. Need to recognize families and communities as major players in determining the mental health of young people. Availability of support especially through schools and child’s network can offer the child a secure base (Bowlby, 1973, Tunnard, 2004).

**Characteristics of Effective Parenting Intervention Programmes**

The most effective programmes were those with systematic training methods for the workers, a structured and evidence-based curriculum, and opportunities for parental practice with children with feedback. Parenting programmes that were more effective had a well developed parenting curriculum, adequate training of workers, a balance of health, nutrition, and early child development components, and both community and governmental (local or national) support. Parenting programmes that were more effective had a well developed parenting curriculum, adequate training of workers, a balance of health, nutrition, and early child development components, and both community and governmental (local or national) support. Long duration did not necessarily result in better outcomes. A meta-analysis of US programmes, for example, identified that an intervention including only effective, high quality sessions showed substantial effects on parent–child interactions. (Bakermans-Kranenburg MJ, *et al.*, 2003).
Evidence for Child mental health interventions from High Income Countries

In high-income countries, (Nowak C, et al., 2008) three meta-analyses of parenting and home visiting programmes identified similar factors contributing to programme effectiveness: systematic curricula, training for workers and parent educators, and active strategies to promote caregiver behaviour change, such as feedback, coaching, role play, and videotaped interactions. They also noted that the quality of the relationship between parent and worker was positively correlated with effectiveness (Nowak C, et al., 2008; Moran P, et al., 2005; Korfmacher J, et al., 2007).

Evidence from SAARC Countries

In one study in India, literate parents who kept a card with Care for Development messages for 2 months increased their recall, understanding, and reported appreciation of these messages (Paul D, et al., 2005). Two studies identifies that social and behavioural interventions led to improved behaviour, school success and persistence (Bernal R, et al., 2009).

One randomised clinical trial in Bangladesh reported that rural children with disabilities whose caregivers received a parenting training package progressed more on adaptive skills and that the mothers improved in their support for their children, compared with a minimal intervention (McConachie H, et al., 2000).

Evidence from Low and Middle income Countries

Four parenting programs used house visits and all reported positive effects on child development (Powell C, et al., 2004; Waber DP et al., 1981; Super CM, 1990; Morenza L, et al., 2005). In Bolivia, Information and skill building about health, hygiene, nutrition and development, linked with a literacy program for indigenous women and home visits, resulted in higher
test scores for participants’ children than those of matched non–participants (Morenza L, et al., 2005).

**Parental Stimulation**

In 1986–87, (Lozoff B & Teal SJL, 2004) researchers identified a group of 129 infants aged 9–24 months in Kingston, Jamaica, who were from very poor families and had stunted growth. The infants were randomly assigned one of four groups: control, supplementation, stimulation, and both supplementation and stimulation. The supplementation consisted of 1 kg milk-based formula a week. The stimulation consisted of weekly home visits from trained community-health workers. Both interventions were given for 2 years. The aim was to enhance interactions between mothers and their infants. This was achieved by demonstrating playing techniques, involving the mothers in play with the children, encouraging the mothers to talk to their children, praise them, and give positive reinforcement. Toys and picture books were left in the homes and mothers were encouraged to play with their children on a daily basis.

In 2003, the researchers interviewed 103 of the participants, 80% of those enrolled in the trial. They reported that the children who had received stimulation in infancy were, as adolescents, less anxious, had fewer symptoms of depression and better self esteem, and fewer attention problems than their non-stimulated counterparts. Furthermore, participants given stimulation were less likely to have been suspended from school or expelled than those not given stimulation. This is the first study to show that stimulation in early childhood produced improvement in mental-health status in adolescence. The intervention constituted mental-health promotion in parenting capacity of the mothers and strengthening an important protective factor for mental health outcomes in children and adolescents.
Group-based parenting interventions are effective for improvement of emotional and behavioural adjustment in children aged under 3 years. (Barlow J & Parsons J 2003). In China, a depression prevention programme that educated schoolchildren in positive thinking, conflict management, and decision making skills was effective for reduction of depressive symptoms. (Yu DL & Seligman ME. 2002). A school-based physical exercise programme in Chile reduced anxiety levels, but not depression. (Bonhauser M, et al., 2005). One trial, targeted at Iranian nursing students, reported that a one-semester programme of educational counselling every week reduced anxiety in the long term (Sharif F & Armitage P. 2004).

**Early Intervention and its impact on child development**

The first few years of life is important because vital development occurs in all domains in this period (Committee on Integrating the Science of Child Development., 2000.) The brain develops rapidly during this time. Children’s development is affected by psychosocial and biological factors (Wachs TD., 2000) and by genetical inheritance. Poverty and its attendant problems are major risk factors (Brooks-Gunn J et al., 1997; Mistry RS, et al., 2004). Variations in the quality of maternal care can produce lasting changes in stress reactivity, anxiety and memory function in their children. Improved parental health especially of mothers, is related to reduced fertility (Jones G, et al., 2003) and improved child survival., health, nutrition, cognition and education (Lam D., 1999; Frankenberg et al., 1995; Rosenzweig.,1994;).

**Long term benefit of high quality intervention programs**

In developed countries, long term benefits from high quality early intervention programmes for disadvantaged children include higher verbal and mathematics achievement, greater success at school ( ie, Less grade repetition,
higher graduation rates), higher employment and earnings, better health outcomes, less welfare dependency and lower crime rates than similar non participants (Currie J. 2001; Karoly L, et al., 2005; Karoly L, et al., 1998; McCormick MC, et al., 2006).

**Early Childhood and Academic Outcomes**

Early cognitive and social and emotional developments are strong determinants of school progress in developing countries (Currie J, et al., 1999; Pianta RC., 1997; Feinstein L. 2003). Two longitudinal studies from developing countries linked early child development and later educational progress. In Guatemala, Preschool cognitive ability predicted children’s enrolment in secondary school (Stith AY, et al., 2003) and achievement scores in adolescence (Gorman KS et al. 1996). In South Africa, cognitive ability and achievement at the end of grade one predicted late school progress. Few other studies conducted in Philippines (Daniels MC, et al., 2004; Mendez MA, et al., 1999), Jamaica (Walker SP, et al., 2005) and Brazil (Victora CG, et al., 2003; Victora MD, 1990) showed that early cognitive development predicted later school outcomes. There is ample evidence of the importance of early childhood shows that interventions at early childhood (Walker SP, et al., 2005; Liddell C, et al., 2001) can have sustained cognitive and school achievement benefits (Daniels MC, et al., 2004; Victora MD, 1990). Children in some developing countries have much lower achievement levels than the children in developing countries in the same grade (Gonzalez P., 2004).

**Early Intervention**

Early intervention is most cost effective intervention with very high effectiveness. Cost benefit ratios for seven programms in developed countries ranged from 1.8 to 17.0 (Karoly L, et al., 2005). Studies have also proved that
the programmes for disadvantaged children during early childhood have a better rate of return than programmes introduced later in life (Heckman JJ. 2006).

Disadvantaged children are destined not only to be less educated and have poor cognitive function than their peers but also to be less productive. Taking into consideration the total cost to society of poor early child development, the next generation will be affected. The children will subsequently do poorly in school and are likely to transfer poverty to the next generation. This loss of human potential is associated with more than 20% deficits in adult income and will have implications for national development. This will in turn affect the national development. So better we do early interventions to reduce the deficits. More than 200 million children under 5 years of age in developing countries are not developing to their full potential. In view of the high cost of poor child development both economically and in terms of equity and individual well being, and the availability of effective interventions, we can no longer justify inactivity.

**Importance of early interventions/ Adolescence**

Youth is a stage at which most mental disorders often detected for the first time in later life, begin young people have a high rate of self harm and suicide is a leading cause of death in young people. Evidence is mixed for whether rates of mental disorders in young people have increases. During past few decades rates of depression in adolescence have shown an increase in various studies (Fombonne E. 1995). Evidence is available for an increase in the rate of conduct problems in young people in UK (Collishaw S, *et al.*, 2004).
Economics and cost of mental health

Decisions about investment in mental health systems can be based on at least three economic criteria: the economic consequences of no investment; the amount of investment needed to address identified needs; and the cost-effectiveness of investment in relation to competing public-health needs. Moreover, non-economic criteria, such as equitable access to health care, human rights protection, and poverty reduction, might be at least as important within the broader process of setting priorities in mental health (Department of Mental Health and Substance Abuse, 2006).

The economic consequences of mental disorders include lost production, premature mortality, and expenditures on ineffective or inappropriate care outside the formal health-care system. Low levels of health-care coverage and insurance in low-income and middle-income settings mean that these costs fall largely on households. For example, a substantial proportion of the direct and indirect costs of schizophrenia, including treatment with antipsychotic drugs, (Oosthuizen P, 2005) are borne out of pocket by families in low-income and middle-income countries (World Health Organization, 2005).

Available data are not sufficient to allow estimation of the costs of treatment for child mental disorders in low-income and middle-income countries (Durkin M, Schneider H & Pathania V, et al. 2006).

There are other economic benefits of mental health care such as reductions in inappropriate use of health care, absence from work due to sickness, and premature mortality, which could even outweigh the investment costs (Rupp A. 1995). Effective, locally feasible, and affordable treatments for depression and schizophrenia in low-income and middle-income countries do exist. Evidence suggests that social interventions to support mental health in
the midst of emergencies might be effective, as might social interventions for
the prevention of depression, substance abuse, and delays in child
development.

**Mental Health Care System**

*Centralized system of care- lack of community care*

Important barrier is caused by the very inadequate human-resource base
for scaling up mental health interventions. Present mental health services are
largely centralised, with inadequate human rights protection and weak links
with community mental health and general-health services. Mental health
treatment gap is a great challenge. Accessibility, Equity and affordability
together with the stigma and discrimination are major factors contributing to
the mental health gap. In order to improve mental health services: we need to
provide treatment for mental disorders in primary care; ensure increased
accessibility to essential psychotropic medication, and provide care in the
community; educate the public; involve communities, families, and
beneficiaries; establish national policies, programmes, and legislation on
mental health; develop human resources; link with other sectors; monitor
community mental health; and support relevant research.

No countries had adequate numbers of providers, trained to implement
effective treatments for people with mental disorders. In India there is only
one psychiatrist for every 2.5 lakh people. It is inadequate to provide care for
the huge number of patients with psychiatric conditions. Other relevant
deficiencies are absence of standards for training, failure to use available
potential resources and inability to implement supplemental training for those
in contact with children who might need care. Less than 10% of child and
adolescent mental health services were provided by primary-care clinicians.
Retraining or supplemental training of adult psychiatrists has also lagged in many countries (WHO, Atlas child and adolescent mental health resources global concerns, 2005).

Mental health professionals will need to be retrained on their role as trainers and supervisors in this process of management of mental disorders. According to WHO, the mental health system should include all organizations and resources focused on improving mental health and cover the domains such as policy and legislative framework, community mental health services, mental health in primary health care, human resources, public education, links with other sectors, and monitoring and research (World Health Organization. 2005).

Most mental health systems in the world are dominated by large custodial psychiatric hospitals that squander resources on ineffective and inappropriate interventions. Furthermore, attempts to create national integrated primary care or community-care programmes have often not lived up to initial expectations. (Cohen A. 2001). 88% of countries have at least one NGO that is active in mental health. (Mental health atlas, World Health Organization, 2005). Common NGO activities include advocacy, mental health promotion and prevention of mental disorders, rehabilitation, and direct service provision (Patel V, et al., 2003).

**Human resources**

Mental health care relies on professionals, rather than advanced technology or equipment. Shortages of psychiatrists, psychiatric nurses, psychologists, and social workers hinder treatment and care in low-income and middle-income countries. Studies from several African countries (Kilonzo GP
& Simmons N. 1998; Lund C, et al., 2002) show that inadequate numbers of health-care professionals are the main limiting factor in psychiatric care.

**Challenges in Mental Health Interventions; Gaps in Human Resource**

Training adequate numbers of providers capable of using the latest findings about child and adolescent mental health disorders to implement effective treatment is a challenge faced in all countries. Failure to respond to the mental health needs of children and adolescents in a more concerted manner will cause avoidable disability and suffering, reduce the ability to achieve health goals and undermine the capacity for countries to be productive in an increasingly competitive world.

**Inadequate Integration and convergence**

Several resource materials and manuals are available for integration of mental health in primary care settings such as schools and community. Integrating the services into existing systems is most important. (Tanzania IMCI Multi-Country Evaluation Health Facility Survey Study Group. 2004). Primary mental health care (as with primary health care for other chronic diseases) must be complemented by additional levels of service, including components of secondary care to which primary health workers can turn for referrals, support and supervision.

**Promotion and Primary prevention Interventions**

**Community Mental Health Interventions**

Preventive strategies aim to reduce: the incidence, prevalence, and recurrence of mental disorders; the time spent with symptoms, the risks for such mental illnesses, and the effects of illness on affected people, their families, and society. (World Health Organization, 2004). Meta-analytic
reviews of controlled trials, almost exclusively from high-income countries, have showed substantial mean effect sizes for preventive trials targeted at depressive symptoms. (Horowitz JL, et al., 2006). In school-aged children and adolescents, preventive interventions targeted at use of alcohol and drugs are effective (Tobler NS, et al., 1997). Small to moderate effect sizes have been reported for stress management, (Kraag G, et al., 2006) child abuse prevention programmes and interventions to reduce aggressive behavior (Mytton J, et al., 2006) and eating pathology (Stice E, et al., 2004).

The investments made in the womb have a higher return than those made at later ages; the returns from earlier investments can be reaped over long periods, and since capabilities (cognition, and physical and mental health) show both self-productivity and cross-productivity, (Heckman JJ. 2007) an early investment has many positive effects.

The incorporation of preventive strategies to reduce the effect of mental health problems needs the adoption of a framework that goes beyond the traditional disease model (O’Connell ME, et al., 2009). Preventive interventions implemented in early childhood in LMIC target overall child development rather than child mental health. However, increasing evidence shows that some of these early interventions can benefit the mental health of children both concurrently and in the long term. An early stimulation programme for stunted children in Jamaica with 2 years of home visits reduced anxiety, depression, and attention deficit, and enhanced self-esteem at age 17–18 years (Walker SP, et al., 2006).

Other non-specific interventions used in many LMIC that have the potential to improve child and adolescent mental health include healthy schools initiatives, life skills education, and youth development programmes; (Cunningham W, et al., 2008).
Attempts to integrate child mental health into existing systems have yielded important lessons. Jordans and colleagues (Jordans MJ, et al., 2010) described several challenges in the implementation of interventions for children in low income settings—integration needs a high degree of intersectorial collaboration, which is not easy; interventions that work in one area may not work in another because of cultural differences; where schools are the entry-point for intervention, children who do not attend might be missed; and the cost-effectiveness of such a model has not been determined.

Recognition that mental and physical health is indivisible is crucial (Prince M, et al., 2007) infectious diseases, malnutrition, and poor obstetric practices all have an effect on a child’s mental health. There for the early intervention should also be focusing on the general health needs of the children because physical health can also be a hindrance to growth and development. Integration of child mental health with other paediatric and primary care services such as the Integrated Management of Childhood Illness and the Mother and Child Health Programmes, and Integrated Child Development Schemes (ICDS) might benefit for the child mental health outcomes and physical outcomes.

Innovative mechanisms to train and supervise the non-specialist workforce and frontline staff have to be developed; and joint ownership should not prevent the emergence of strong local leaders who can work together and also influence national and international policy.

Mental health services should be provided in the community, with the use of all available resources, which can lead to early intervention and remove the stigma of patients receiving treatment (World health report 2001).
Indian Initiative- Integrated Child Development Scheme (ICDS)

Realizing the importance the government of India has come up with many interventions strategies such as Integrated Child Development Scheme (ICDS) but very little scientific and systematic high quality researches have been done to find its effect on cognitive and academic development of the children. In 1992, the national Institute of public cooperation and child development in India compared around 14000 ICDS children with 2000 control children from non participatory communities that had similar services and reported less likelihood of ICDS children being severely malnourished and greater likelihood of attending school (Rao N, et al., 2002; NIPCCD. 1992). But world bank evaluation in 2002 indicated that the ICDS had “only modest positive effects probably because of low funding, work overload of community workers and insufficient training (Rao N, Sharma A. 2007). An association between poverty and child development was recorded as early as 10 months in India (Black MM, et al., 2004).

Programs for few other Low and Middle income countries

In the early 1980s, Peru developed a community preschool and feeding programme for disadvantaged children. An evaluation in1999 showed that first graders who had attended the programme did not differ on indices of school performance from those in formal pre schools, but both groups had higher scores than children who did not attend the programme (Cueto S, et al., 1999).

World bank funded PIDI (Proyecto Integral de Desarrollo Infantil) Programm in 1990s in Bolivia. They trained low income urban women to run child care centres in their homes. The children were provided with food, health and nutrition monitoring and education activities (Behrman J, et al., 2004) and children benefitted in cognitive and psycho social development.
Evidence based Interventions in schools

Schools in particular offer an ideal setting for mental health promotion in children by reducing the risk factors and strengthening the protective factors otherwise will result in several risk behaviours, such as substance abuse, self harm and sexual risk behaviours (Caldwell L, et al., 2004).

The most often implemented activities were basic counselling for individuals; facilitation of community support for vulnerable individuals; child friendly spaces; support of community-initiated social support; basic counselling for groups and families; increase of psychoeducation and awareness; structured recreational and creative activities; training of aid workers from diverse humanitarian sectors; psychosocial support for schoolchildren; and non-pharmacological management of mental disorders by general health-care providers.

Safe Relationship Program: Lowe, Jones, and Banks (2007) used a pretest–posttest design and reported on the results of the Safe Relationships Program with 106 ninth graders in the United States. They found that participants reported having increases in knowledge of sexual activity, sexual crime, and sexual harassment between pretest and posttest. In addition, among students who revealed a higher tolerance for sexually inappropriate behavior at pretest, posttest results revealed a reduced tolerance (Lowe et al., 2007).

School Based Health Clinic Program: Kirby, Waszak, and Ziegler (1991) explored the impact of a school-based health clinic (SBHC) on the sexually risky behaviour of middle and high school students in Dallas, Texas, through the use of a quasi-experimental design. The SBHC was staffed with a multidisciplinary team that included a social worker and a nurse. Using data from 4,489 visits to the clinic, researchers found that among the students who
visited the clinic, males were less likely to have sex and postponed the onset of intercourse by one year. Among females, however, results indicated that they were less likely to use contraceptives and reported higher rates of pregnancy (Kirby et al., 1991). Most of the effect sizes reported in the study, however, were nonsignificant.

Project U – Turn:- A study investigated the efficacy of a sexual abstinence program, Project U-Turn, delivered to middle and high school–age youths in Miami, Florida, by means of a pretest–posttest design (Sherr & Dyer, 2010). The intervention was delivered by social workers to 372 students in a classroom setting, and the results revealed a significant reduction in the number of youths who reported having sexual intercourse. A medium effect size was calculated for both sexual knowledge views and abstinence behaviour.

Making Choices:- Two studies were conducted investigating the efficacy of a program entitled Making Choices (MC) on elementary school–age youths’ aggressive behavior. The first Randomized Control Trial was conducted with 101 third-grade students in a south eastern state in the United States (Smokowski, Fraser, Day, Galinsky, & Bacallao, 2004). Results revealed that students in the experimental group had significantly lower scores on overt aggression, with a medium effect size estimate reported. They also found that the MC group had higher levels of peer acceptance, although the reported effect size estimate of 0.05 borders on no treatment effect for this outcome (Smokowski et al., 2004).

The second study comprised 443 third-grade students in the United States and compared MC, MC Plus, and a control group (Fraser, Lee, Kupper, & Day, 2011). Participants in both the MC and MC Plus groups reported significantly lower levels of aggressive behavior when compared with the
control group. There were no significant differences in outcomes between the MC and MC Plus group, and a small effect size estimate was reported for aggression.

**Go Grrrls Program**

LeCroy (2004), the Go Grrrls Program, designed to assist young girls with issues such as body image and self-esteem. Results of this quasi-experimental study with 55 students in the United States found that group participants had significantly higher levels of peer esteem, help endorsements, and common irrational beliefs when compared with the control group. No differences regarding body image, self-esteem, and depression were found (LeCroy, 2004). Also focusing on outcomes associated with identity, Spencer, Brown, Griffin, and Abdullah (2008) investigated the efficacy of a group intervention focusing on intergroup relations among 86 eleventh-grade students who were seen as leaders in mid-western high schools in the United States. Using a pretest–posttest design, researchers found that participants had increased social awareness and intergroup relations at posttest.

**Three Tier Studies**

The three tier studies investigated the impact of various outcomes. One study reported on the impact of SBHCs on both physical and psychosocial health-related quality of life (Wade & Guo, 2010). Social workers provided behavioral and mental health assessments, psychiatric referrals, and crisis intervention as a part of the health team at some of the sites. Researchers employed a pretest–posttest design with 209 youths in Cincinnati, Ohio, and Northern Kentucky and found that participants reported significant increases in both total scores and psychosocial scores associated with health-related quality of life (Wade et al., 2010). A small effect size estimate of 0.19 was
calculated for the health-related quality of life outcome. Stress management treatment was provided to 88 sixth-grade students in a classroom setting in the United States (De Wolfe & Saunders, 1995). Results from this quasi-experimental design revealed statistically significant improvements in participants’ stress level, social skills, and self-esteem.

Yahav and Cohen (2008) with 255 ninth-grade youths in Northern Israel. Using an RCT design, the authors found that students who received the stress management and biofeedback intervention had small but statistically improved anxiety behavior, and self-esteem scores.

**Supervision to strengthen the Practice**

RCTs have shown that supervision can improve performance at least in the short term (Ross-Degnan D, et al., 1997). If correctly done supervision could be a mechanism for providing professional development, improving health workers’ job satisfaction and increase motivation (Management Sciences for Health. 1993). Main challenges of supervision are improving quality and increasing the time supervisors actually spend with mental health social workers.

**Secondary Prevention**

In HIC, proven interventions for prevention of behavioral disorders include parent training in behavior management, teacher training in classroom management, psychosocial interventions with children, or all three. Preventive interventions have been successfully integrated into schools, (Baker-Henningham H, et al., 2009) health-care settings, (Oveisi S, et al., 2010) and community services; (Wu Z, et al., 2002) this integration into existing services is likely to be important for the scale-up and sustainability of interventions.
mhGAP intervention initiatives have been launched by WHO to provide evidence-based intervention by non specialized mental health care workers in non specialized settings (mhGAP intervention guide 2010). These treatment algorithms include methods for assessment and management of various disorders in childhood and adolescence. The manual also contains specific guidelines for the management of developmental and behavioral disorders, such as family orientation, advice to teachers, and community-based rehabilitation.

The integrated services programme of the World Psychiatric Association Presidential Programme on Child Mental Health provides two sets of evidence-based techniques to address internalising and externalising problems in school-age children (Graeff-Martins AS, et al., 2008).

These two manuals discuss how to implement brief interventions, and constitute a valuable resource that can be further used for the implementation of integrated, evidence-based systems of care according to local needs (Jensen PS. 2006).

Education Program with 343 high school students in the United States. This pretest – posttest design intervention was delivered by teachers who were trained by social workers. At three-month follow-up, the students had statistically improved attitudes toward sexual assault among both male and female participants. A medium effect size estimate was calculated for this outcome.

A systematic review (Jordans M, et al., 2009) of interventions for children affected by violence in LMIC showed that most interventions were beneficial by reduction of negative symptoms, increase of protective factors, or both. Ideally, early interventions would prevent the onset of child and adolescent mental health problems. Nevertheless, once diagnosed, more complex and targeted treatment interventions are usually required.
Several meta-analysis (Burns BJ, et al., 1999; Kazdin A, 2003; UK National Institute for Health and Clinical Excellence. 2005) have shown support for individual, group and family psychotherapies, particularly those with behavioural or cognitive-behavioural orientation, for a range of mental health and behavioural disorders.

Some evidence is available from adult studies (which included young people) that psychological therapies are of benefit, particularly in reducing suicide related behaviours and substance use, in borderline personality disorder (Binks C, et al., 2006). Integrate youth mental health interventions with all existing youth programs, including those in the health sector (such as reproductive and sexual health) and outside this sector (such as education). Some evidence exists regarding antisocial or conduct disordered youth offenders, for whom family and parenting interventions have been shown to be effective in reducing the time of incarceration (Woolfenden S, et al., 2001).

For eating disorders, trials and systematic reviews have not been specific to adolescents and young adults. However, the mean population ages of those with these disorders are generally within 12-24 year age range. Cochrane systematic reviews and meta analysis indicate some evidence for benefit of anti depressants and combined anti depressant- psychological treatment in bulimia nervosa (Bacaltchuk J, Hay et al., 2003; Bacaltchuk J, et al., 2001). But not for antidepressant use in anorexia nervosa, where family therapy might be an effective intervention (Ball J, et al., 2004).

Several trials of psychotherapy in children and adolescents have been undertaken, with results providing evidence for psychotherapy generally, with no one type clearly established as superior to another (UK National Institute for Health and Clinical Excellence. 2005).
Very few studies exist that have compared or combined the treatments with exception of the US treatment of Adolescents with Depression Study (March JSS, 2004). In this trial 439 adolescents aged between 12-17 years were randomly assigned one of the four treatments, Medicine alone, Cognitive Behaviour therapy alone, medicine and cognitive behaviour therapy and placebo and reported that the combination treatment was more efficacious than the other treatments. On the basis of evidence from these studies it is recommended that psychosocial treatments are used as first line interventions in mild cases complex cases both medicine and psychosocial treatment combination.

**Teacher Led Interventions**

A study (Atkins MS, *et al.*, 2008) in low-income urban African-American communities showed that peer-identified teacher opinion leaders enhanced the dissemination and implementation of school-based mental health programmes by promotion of increased teachers’ self reported use of recommended strategies of attention deficit hyperactivity disorder management compared with mental health providers alone. (Owens JS, *et al.*, 2008). Done in an underserved community in the Appalachian region of the USA, a combined psychosocial intervention effectively reduced hyperactivity symptoms and early aggressive and delinquent behaviour.

**Effectiveness of Interventions in Emergency situations**

Similarly, a small study from the midst of a large emergency in Northern Uganda suggested that behavioural therapy could be effective to treat post-traumatic stress disorder (Neuner F, *et al.*, 2004).

Studies in high-income countries suggest that single-session psychological debriefing for post-traumatic stress disorder immediately after trauma is ineffective (van Emmerik AAP, *et al.*, 2002) and a non-randomised controlled
study of 69 teenage refugees in Gaza showed that post-traumatic and depressive symptoms did not improve with seven sessions of clinician-facilitated group crisis intervention based on a psychological debriefing protocol. (Thabet AA, et al., 2005). For people in severe acute distress, psychological first aid (consisting of protection from harm, solutions for basic needs and concerns, and provision and raising of social support) has been recommended immediately after trauma (National Institute for Mental Health, et al., 2002 ; WHO. Mental health in emergencies: 2003).

Studies more than a year after a large earthquake, in Turkey, showed that brief behaviour therapy reduced post-traumatic stress disorder and depression. (Basoglu M, et al., 2005), symptoms of post-traumatic stress disorder were reduced in adolescents in post-conflict Bosnia who received school-based psychotherapy for trauma and grief (Layne CM, et al., 2001).

**Tertiary Prevention**

**Evidence in Psychological Treatments**

There is robust international evidence on the efficacy of psychological treatments (notably cognitive behaviour therapy and interpersonal therapy) for common mental disorders, such as depression, anxiety and somatoform disorders (World Health Organization. 2005; Tanser F, et al., 2001;). There is also a growing global evidence base testifying to the cost effectiveness of these interventions (World Health Organization. 2001; Black N. 1996).

**Evidence in Treatment of Alcoholism**

Strongest evidence for the management of alcohol misuse in primary health care setting is from brief psychological interventions and motivational interviewing delivered by physicians or nurses (Shortell SM, et al., 1998).
Evidences in Psychological Interventions

Cognitive Behaviour Therapy

Two of the interventions were based on cognitive–behavioral therapy (CBT). Larkin and Thyer (1999) used an RCT design with 52 first- to third-grade students in the United States and found that participants had significantly improved self-esteem, self-control, and classroom behavior. Parton and Manby (2009) reported on the results of their pretest–posttest study with 38 middle school children from the United Kingdom and also found significant differences in participant’s behavior. The self-esteem outcome, also improved slightly from pretest to posttest. A Sri Lankan pilot trial (Sumathipala A, et al., 2000) assessed the effectiveness of cognitive behaviour therapy for reduction of medically unexplained symptoms, which are a frequent presentation of depression and anxiety. The intervention, consisting of six sessions of cognitive behaviour therapy over three months, reduced symptoms, visits, and distress, and increased patient satisfaction in the short term (Sumathipala A, et al., 2000).

Solution Focused Brief Therapy

Newsome (2005) used solution-focused brief therapy (SFBT) group intervention with 26 seventh- and eighth-grade at-risk students in the United States. Through a pre test – post test design, he found that participants reported improved social skills, classroom behavior, and homework completion.

Interpersonal Group Treatment

Mishna and Muskat (2004) investigated the efficacy of an interpersonal group treatment and mutual aid group intervention with 21 fifth- through 11th-grade students who had been referred for learning or psychosocial problems in
Canada. Statistically fewer externalizing symptoms and overall behavioral problems were reported post-intervention. Effect sizes ranged from small for internalizing behaviors to near medium for externalizing behaviors and overall behavioral problems.

**Children’s Group Grief Intervention**

Hilliard (2007) investigated the impact of a social worker–implemented children’s grief group intervention with 18 elementary-age children in the United States who had experienced some type of grief or loss. This quasi-experimental designed study revealed that students in the social group work had large treatment effects and significantly fewer behavioral problems, as well as fewer types and lower severity of childhood grief symptoms.

**Interventions for various specific Conditions**

For internalising problems, group cognitive behavioral therapy was effective for the treatment of obsessive compulsive disorder in Brazilian children and adolescents (Asbahr FR, et al., 2005).

**Evidence based interventions to reduce Aggression**

In addition, several studies examined interventions aimed at reducing aggression among elementary students. Although the operational definition of aggression varied by study, examples of aggressive behaviors analyzed in the studies are fighting, breaking things, harming others, bullying, and threatening peers. Known as a common risk factor for a variety of subsequent negative outcomes in adolescence and adulthood, aggressive behavior has become an important focus for prevention researchers (Barczyk, Montgomery, & Thompson, 2011).
Cognitive–behavioural group counselling, interpersonal group counselling (Mishna & Muskat, 2004), and SFBT (Newsome, 2005) demonstrated a range of small to very large effects on problem behaviours. Both CBT and SFBT have revealed promise with students in the school setting. Most of these interventions were delivered once a week for approximately eight weeks. Harris and Franklin’s (2003) CBT treatment, known as Taking Charge, revealed medium to large effect sizes with several outcomes: school attendance, grade point average, coping, and problem-solving skills.

**School Mental Health Social Work**

Across the globe, social workers serve schools in a variety of capacities, providing services such as skills training, individual, group and family counselling; crisis intervention; home visits; parent support and education and advocacy for students, families and school system. Most of the interventions aimed to treat a variety of outcomes such as sexual health, aggression, self esteem, school attendance, identity and depression.

**School Based Interventions**

NASW (2008) has identified universal access to health and mental health care as one of social work’s top priorities. Mental health literacy—used by Australian researcher Anthony Jorm and his colleagues in late 1990s as an extension of the term “health literacy” refers to knowledge and beliefs about mental health disorders that aid in recognition, management or prevention. Mental health literacy includes the ability to recognize disorders and obtain mental health information, knowledge of risk factors, causes, self treatments and professional help; and attitudes that promote recognition and appropriate help seeking (Jorm et al., 1997). Research indicates that health literacy
(Berckman et al., 2004) and more specifically mental health literacy, can be improved (Angermeyer & Matschinge, 2005).

US studies have found that with only 58% of adults demonstrated the ability to recognize a child with depression (Pescosolido et al., 2008) and less than half of adolescents in one study correctly identifies depression (42.4%) or anxiety (27.5%). Research with children and their families has found a relationship between parent knowledge of mental health disorders and quality of services used for a child with mental illness, and findings have suggested that increasing parent knowledge can positively improve the quality of service utilization and consequently a child’s symptom severity (Mendenhall, Fristad & Early, 2009).

In addition, stigmatizing attitudes towards mental health disorders are prevalent among adults and children, and those attitudes often act as a barrier to obtaining treatment. An increase in mental health literacy sometimes associated with a reduction in Mental health stigma in adults and children (Essler, Arthur & Stickley 2006).

**Three tier System of care in Schools**

Researchers estimate that approximately 95% to 99 percent of school-aged youth can have their treatment needs met through tier I (universal) and tier II (selective) interventions. Tier I interventions are delivered to the whole school usually in a class room setting, by a teacher, School worker, or other professional, and approximately 85 percent of students do not need intervention beyond this level (Kelly, Montgomery & Franklin, 2012).

These interventions are indented to prevent the development of problem behaviours and may develop specific social behaviour in the class room that
are positively reinforced school-wide. Schools implementing tier I interventions with fidelity have reported fewer disciplinary referrals and class problem behaviour as well as improved positive school climate. Tier II interventions are considered to be more intensive and are frequently delivered in a small group setting; an estimated 5% to 10% of all school age students are in need of tier 2 level interventions to be successful in the school setting (Lindsey & White, 2008). An example of a tier II intervention would be a therapeutic small group designed to intervene with particular problem, such an intervention might be implemented by a school social worker.

**Tier III Interventions**- It is estimated that only 1% to 5% of youths need intervention beyond tier I and Tier II (Stormont *et al.*, 2012). This is known as tier III and offers intensive individualized treatment.

School based social work is a growing profession (Kelly., 2008). They address psycho social, academic and physiological needs of school age youths. School based social workers around the globe provide a variety of services, including, individual, familial, group therapy, case management, teacher and class room support; and children and family advocacy. Huxtable (1998) explained that in almost all countries, school based social workers seek to address behavioural, emotional, familial and community-related needs in relation to students’ education. There are several reviews examining the effectiveness of school-based social work interventions exist.

**Implications for School-based Social Work**

School social work practitioners across the world are increasingly being expected to operate from an evidence-based practice (EBP) framework, implementing interventions that offer the best evidence to intervene with a particular problem (Powers *et al.*, 2011). Despite significant advancements in
globalization, access to EBP materials and data, and the substantial attention that has been given to the dissemination and implementation of EBPs, very few empirical data on school-based social work interventions are available from outside the United States.

Social workers are uniquely equipped to intervene with at-risk youths in the school settings, because the field of social work emphasizes training and understanding of youths who are affected by severe poverty, abuse, neglect, and disabilities.

**Interventions for behavioural disorders: universal**

School-based preventive interventions for children aged 3–8 years involving teacher training, teaching a class-wide social-emotional curriculum, or both, have shown concurrent improvements in child problem behaviours and child competencies (Mishara B, *et al.*, 2006)

Furthermore, there is evidence that these interventions are well accepted by teachers (Mishara B & Ystgaard M. 2006). Integration of a brief behavioral parent training intervention into health services for 2–6-year-old children in Iran improved parent reported practices and child abuse.

**Interventions for emotional disorders: universal**

Interventions involving structured activities have shown benefits for children aged 7–14 years in war-affected communities. (Loughry M, *et al.*, 2006). A school-based physical activity intervention for 15-year-old students in Chile showed benefits to anxiety and self-esteem but not to depression. A psychosocial intervention to prevent depression in 12–16-year-old adolescents in Mauritius showed short-term benefits to depression, hopelessness, coping skills, and self-esteem. Benefits to coping skills and self-esteem were sustained at follow-up after 6 months.
Interventions for emotional disorders: selective

School-based psychosocial group interventions have generally, shown benefits to child and adolescent mental health, including internalising problems, behavioral difficulties, and competencies. Interventions have targeted children aged 7–18 years affected by conflict, (Jordans MJ, et al., 2010).

Interventions for intellectual disorders: universal

Effective interventions to prevent cognitive deficits in low-income and middle-income countries include maternal and child nutritional and micronutrient supplementation, immunisation programmes, reduction of exposure to environmental toxins, prenatal and perinatal maternal health interventions, malaria prevention, and early stimulation programmes (Durkin M, et al., 2006; Engle PL, et al., 2007).

Interventions for intellectual disorders: selective

Home-visit programmes to train mothers of 3–6-year-old disabled children in early stimulation activities have shown some benefits to child development (Shin JY, et al., 2009).

Disability and stigma: how Japanese educators

Japanese elementary school educators provided an intervention to parents of children with relatively mild cognitive and behavioural disabilities, such as learning disabilities, attention deficit/hyperactive disorders and high functioning autism. Teachers supported parents through a steadfast focus on emotional support, communication, relationship building and partnerships and it helped to integrate these children.
Resource Crunch

Global mental health resources are characterized by three features: scarcity, inequity in their distribution and inefficiency in their allocation. Major chunk of health expenditure is directed towards running the psychiatric hospitals and institutional care and very little is earmarked for promotive and preventive interventions. There is evidence that psycho social treatments are feasible, affordable and effective for many mental disorders provided the governments utilizes the untapped resources effectively.

Determinants of performance of mental health Social Worker

Major determinants of mental health Social worker performance are the Knowledge, skills, motivation and job satisfaction, remuneration, experience, fear of a bad clinical outcome, attitude towards own self efficacy, the belief on guidelines’ effectiveness, professional values, personal goals, perceptions of patients demands and fear that unsatisfied patients will go to another health worker, comprehension of work responsibilities and the health workers’ own health (Brugha R, et al., 1998).

Inadequate Resources

The estimated total number of mental health care workers needed in the 58 countries of low and middle income in 2005 was 362 000, representing 22.3 workers per 100 000 population in low-income countries and 26.7 workers per 100000 in middle-income countries, comprising 6% psychiatrists, 54% nurses in mental health settings, and 41% psychosocial care providers. There is a shortage of 1.18 million mental health workers was reported for all 144 countries of low and middle income.
Task shifting

Task shifting, defined as less training or narrowly tailored training”, (Fulton BD, et al., 2011) is an essential response to shortages in human resources for mental health. This process can entail: employment of mental health care providers in different sectors. Intersectoral collaborations with other professionals, such as teachers, to strengthen mental health awareness, detection of mental disorders, referrals, and service delivery; or both of these.

Role of psycho social worker

In most studies, psychiatrists, neurologists, and psychosocial workers have provided effective short-term training, supervision, and monitoring for non-specialist health workers, enabling detection of mental disorders, referral, treatment, psychoeducation, and follow-up care, with positive outcomes for patients (Araya R, et al., 2003; Rojas G, Fritsch R, Solis J, et al., 2007; Chatterjee S, et al., 2009).

There is a huge need for evidences in the task sharing with teachers. Researcher could get only one study that looked at the effect of training school teachers for raising mental health awareness among school children, parents, and neighbours (Srinivasa Murthy R, 2005).

Challenges and lessons learned

Five major barriers to scaling up of mental health services in countries with low and middle incomes have been previously identified: (Saraceno B, 2007) (1) absence of financial resources and government commitment; (2) over centralisation; (3) challenges of integration of mental health care into primary care settings; (4) scarcity of trained mental health personnel; and (5) shortage of public health expertise among mental health leaders.
Mental health Social Workers need to broaden their roles. Besides being traditional clinicians, they also need to accept responsibility for planning, training, supervision, and advocating with decision makers in their area of expertise.

To achieve this goal, social workers themselves need access to relevant training in these skills. Scaled up services need to be evaluated and the lessons learnt from evaluation then generalised.

**Stigma and Discrimination**

*Indian Scenario of stigma and its consequences*

In India, relatives of people with schizophrenia were sufficiently concerned about the effects of stigma on marital prospects and the possibility of rejection by the community that they hid the condition from others. (Thara R, *et al.*, 2003). Indian women with mental disorders reported the highest levels of stigma, in addition to that associated with separation or divorce, and were especially disadvantaged since they often received no financial support from their former husbands. (Thara R, *et al.*, 2003; Thara R & Srinivasan TN. 2000). In India, psychiatrists are the least preferred option for people seeking help for mental illness. (Chadda RK, *et al.*, 2001). Research on help-seeking by young people has not fully explained the very low rates of consultation by those who are mentally ill (Tyssen R, *et al.*, 2004).

Potential explanations for avoidance of health care by young people include low levels mental health literacy (Burns JR, *et al.*, 2006) and negative emotional responses or attitudes to people with mental illness (ie, stigma). (Angermeyer MC, *et al.*, 1999). Young people who seek and receive mental health care also face barriers to care. (Patel V, 2007) Compared with adults,
young people have less favourable attitudes towards people with mental illness, (Stuart H & Arboleda-Florez J. 2001) and young people with mental illness might be exposed to more stigma than adults. (Thara R, 2000). Because young people are often embarrassed about mental illness (Barney LJ, et al., 2006) and believe that it should be handled privately; they tend to seek help less often (Corrigan PW, et al., 2005; Gould MS, et al., 2004).

*Stigma and discrimination*

A survey in South Africa (Stein DJ, et al., 1997) reported a general public perception that mental illnesses were related to stress or insufficient willpower, rather than medical causes. People therefore believed that such problems could be dealt with by discussion, rather than consultation with health professionals. (Cheetham WS & Cheetham RJ. 1976). Such attributions are associated with blame and rejection, as opposed to sympathtic or helpful responses to people with mental illness. (Corrigan P, et al., 2003) In China, (Fabrega H. 1991) a large-scale survey reported that more than half the family members of people with schizophrenia said that the effect of stigma on them and their family was such that they had decided to conceal the mental illness in their family. (Phillips MR, et al., 2002) stigma was greatest in urban areas and for people with education (Phillips MR, et al., 2002).

*Policy Critique*

Nearly 80% of the 191 countries had a mental health policy or programme (or both) and about 70% have mental health legislation. Specific child and adolescent mental health policies were generally absent, despite the finding that mental health programmes will not be adequately developed without relevant policies. A designated institution or a governmental entity with overall responsibility for child and adolescent mental health services
could only be identified in less than a third of all countries. Acknowledgment of the UN Convention on the Rights of the Child (often seen as a corollary of child mental health policy) far exceeded its use in policy or programme development. 30 of 66 countries identified a national policy incorporating child rights, most often with a specific focus on abuse, rather than more general child mental health needs. This gap is important, since advocacy for child mental health services is complex and too often an adversarial process (WHO, Atlas child and adolescent mental health resources global concerns, 2005).

**International Policy on mental Health**

Atlas of Child and Adolescent Mental Health Resources (Shatkin J, *et al.*, 2004) suggest that governmental child mental health policies are scarce worldwide. The UN resolution on a World Fit for Children (UN. Convention on the Rights of the Child) endorses the commitment that “every child has the right to develop his or her potential to the maximum extent possible to become physically healthy, mentally alert, socially competent, emotionally sound and ready to learn”. LMIC too often identify their ratification of the UN Convention on the Rights of the Child as proof of their commitments to child and adolescent mental health services and to child and adolescent wellbeing in general. However, evidence suggests that endorsement of the Convention is not correlated with the development of specific policies or programmes to support child and adolescent mental health services. (Belfer ML, *et al.*, 2006; The World Report on Violence and Health, 2002) identified abuse and neglect in the early years of life as leading to emotional difficulties and mental health problems and urged for the protection of children from harm.
Subsequently, the UN Convention on the Rights of Persons with Disability was adopted, which includes provisions for those affected by mental illness and can affect country-level advocacy for the development of child mental health services and for the humane treatment of those with mental health problems (Richmond J, et al., 1983). The key to the development of child and adolescent mental health policy is the education of the population about the need for such services in order to improve the quality of life for individuals, families, and communities.

Heaver has identified some of the reasons for governments not investing sufficiently on early child development. They are children’s loss of developmental potential, and the cost of loss of developmental potential, both for individual children and poverty alleviation, is not recognised. There is no globally accepted indicator for child development to monitor progress or ensure accountability. Governments respond to short-term effects and find difficulty in justifying the long-term investment in human development. There are multiple organisational stakeholders for young children, so the responsibility for early child development is not assumed by any entity. There is not a single strategy for promoting early child development (Heaver R. 2005).

Conclusion

There are compelling reasons for the governments to invest in interventions for early child development. Early age intervention is the most cost-effective period in the child’s life to invest. Events in the early years of a child’s life influence the child’s productivity and learning ability throughout the life course, and are effective strategies for reducing poverty among disadvantaged populations. Programmes increase the efficiency and effectiveness
of school expenditures by reducing drop-out and repetition. Increased schooling for girls has a long-term effect on their children’s survival, growth and development. Interventions are more sustainable because parents and families carry these changes over to subsequent children. There is a strong evidence base on effective interventions for early child development.